

ESTABLISHED
1852.

TRADE

'OPTIMUS'
MAGIC LANTERNS.CATALOGUE
FREE.

Adapted for use with Limelight. For Dissolving, Two Lanterns are necessary. Each Magic Lantern is efficient for Exhibitions. The Lens gives crisp definition, being a superior Achromatic, Photographic combination (large diameter black lens), with rack and pinion. It is fitted to a telescopic lengthening tube, so gaining increased focal accommodation. The Condenser is composed of two plano-convex lenses of four inches diameter. The refulgent lamp has three wicks (or four wicks 2s. extra), yielding a brilliantly-illuminated picture. Each is complete in box.

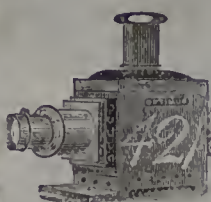


Japanned Metal.

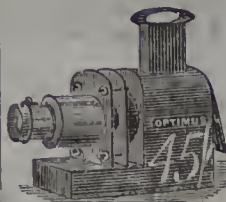
30/.



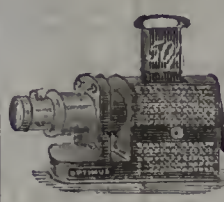
Student's Lantern (to take demonstrating tank) finished Brass Sliding Tubes. 40/.



Mahogany outside Body, Japanned Metal Stages, and Sliding Tubes. 42/.



Russian Iron Body, Brass Sliding Tubes. 45/.



Perforated Russian Iron Body, Brass Sliding Tubes. 50/.



Mahogany outside Body, 2 Panelled Doors, Brass Stages, & Sliding Tubes. 82/.

**'OPTIMUS' BI-UNIAL
FOR LIMELIGHT.**

The Top Lantern may be used separately with Oil Lamp.

Seasoned Mahogany Body, 4 Panelled Doors, and Moulded Foot, picked out with black, Japanned Stages and Tubes, Achromatic Photographic Front Lens, Compound Condensers £5 12
Do., do., all Brass Stages £8 1

**'OPTIMUS' TRIPLE LANTERN
FOR LIMELIGHT.**

Seasoned Mahogany Body, 4 Panelled Doors, Moulded Foot, picked out with black, Brass Stages and Tubes, Achromatic Front Lenses, Compound Condensers £14 10

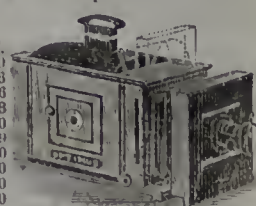
'OPTIMUS' ENLARGING APPARATUS.

Patent Quick-acting Rack Adjustment.

This Apparatus comprises superior Mahogany Body Lantern and Long Bellows Camera adjusted by Rack and Pinion. The Lantern is fitted with powerful Refulgent Lamp, with 3 wicks, giving brilliant illumination. Compound Condensers

CONDENSERS.

	s. d.		s. d.
5-in., no front lens	100 0	5-in., no lens	75 0
5-in., with ..	127 0	5-in., and ..	102 6
6-in., no ..	133 0	6-in., no ..	87 6
6-in., with ..	151 0	6-in., and ..	115 8
7-in., no ..	155 0	7-in., no ..	11 0
7-in., with ..	173 6	7-in., and ..	137 9
8-in., ..	250 0	8-in., no ..	160 0
9-in., ..	260 0	9-in., ..	250 0
10-in., ..	260 0	10-in., ..	285 0
12-in., ..	580 0	12-in., ..	450 0



Lantern Photographs, Plain, 12/-; Coloured, 18/6 per doz.

PERKEN, SON & RAYMENT, 99 HATTON GARDEN, LONDON.

FALLOWFIELD'S
PERFECTED "FACILE"
HAND CAMERA

JONATHAN FALLOWFIELD'S

"FACILE"
HAND CAMERA.

£4 4s and £5 5s. complete.

Discounts to Dealers and Chemists only.

OVER 300 AGENTS.

Price Lists profusely Illustrated.
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EXCHANGE COLUMN.

This Section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week. Remittances payable to EDWARD HALSE.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1/3d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to 'The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.O.,' and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

FOR DISPOSAL.

Drugs and Chemicals.

Bargains—5 2-lb. ol. bergamotte, extra quality, at 20s. each; 10 2-lb. ol. auran. et limon. (mixed), excellent perfume, at 10s. each, free on rails, sample 3d. Watson, Chemist, Shipley.

Literature.

Offers for *The Pharmaceutical Journal* posted on Saturday morning. Knott, Chemist, Bolton. For sale, 5½ years' *Pharmaceutical Journal*, very cheap; what offers? Address, A. O., care of Bell, Chemist, Ambleside.

Offers requested *Chemist and Druggist*, 1883: April missing 1884, 1885; December missing 1887, 1888, 1890. Bell, Chemist, Banwell, Somerset.

Formulæ.

Receipts for wedding bouquet and Persian ess. 119/27.

Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.

Mixture for tic and toothache, never fails, has proved the only cure in hundreds of cases, nothing in the market to equal it, receipt 2s. 6d. W. Arthur, 99 Blockley Old Road, Manchester.

Brooks's sweet solid perfumes are best and cheapest; four sorts—"Multifloral," "Moss Rose," "Old English Lavender," "Heliotrope and Musk"; 2d. blocks last for years, improving by age; recipes for the set, with instructions, 3s. 6d., or recipes, with 6 of each as sample, per 5s. Tom Brooks, Chemist Hornsey, London, N.

Chilblains.—The "Canadian Cure," acts like maglo, cleanly, economical, profitable; recipe, with 12 sample boxes (retailing 2d. each), post free 2s. Glycerine oream, infallible remedy for chaps, frost-bite; keeps hands soft and white. Licorice and glycerine, pleasant, efficacious. Oough-syrup, very profitable, honestly recommended. Recipes 7d. each, above 3 for 1s. 6d., with list 400 post free. Tom Brooks, Chemist, Hornsey, N.

Brooks's reliable recipes have stood the test over 10 years, and every one is warranted to give satisfaction. I can strongly recommend the following 12, and will send them, post free, for 5s., with full instructions:—"White Oils," inseparable, creamy, and rubs well, under 8d. lb.; "Hop Tonic," quickly made, brilliant, pleasant taste; "Occasional Pills" for ladies, always have desired action; "Tic Specific," cures after all others have failed; "Oatmeal and White Rose Lotion," soothes the skin, removes tan, &c.; "Quinine and Iron Tonic," no better, nicer, or cheaper made; "Peruvian Gout Pills," certain remedy, a fortune has been made by them; "Limes and Glycerine," inseparable, snow-white, and inexpensive; "Liver Pills," clear the head, and make living n pleasure; "Sanitary Lotion," for nits and all uncleanness in children's heads; "Oorn Cure," equalled by few, excelled by none—personal experience "Sanitary Furniture Cream," splendid, brilliant, lasting polish, costing 9d. pint; any 3 for 1s. 6d.; lists free. Tom Brooks, Chemist, Hornsey, London, N.

Shop Fittings.

Entire Chemist's fittings and fixtures, small. Apply, 343 Upper Street, Islington, N.

Herbarium and materia medica cabinet for sale; offers wanted. Smith, Chemist, Potton.

Shop-rounds, 300 various sizes, 7s. 6d. per doz. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Chemist's shop-fittings.—The entire fixtures in solid mahogany, artistically carved, drawer knobs cut-glass, in excellent condition, at one-fifth their value to immediate purchaser; inspection invited. Wilson, Chemist, Douglas, Man.

Materia medica cabinet (mahogany), 12½ by 17 by 15, containing nine drawers with 205 compartments, 175 2 in. by 2½, and 30 6 in. by 2; doors, with lock and key; it contains 184 specimens in perfect condition; cost 8l.; offers wanted. F. J. Kilner, Royal Infirmary, Bristol.

Drawers, 12 ft. run, with glass labels and glass knobs, price 8l.; counter, 11 ft. long, 60s.; desk and case, 50s.; 3-ft. bent-glass counter case, 30s.; tooth-brush case, 35s.; sponge case, 90s.; dispensing screen, very handsome, 7l. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Pear-shaped show-bottle, cut stopper (hand-some), 19½ in. high, exclusive of stopper, offers; dispensing-scales, brass pillar, mahogany stand, drawer underneath, 10s. 6d.; set of counter shelves, 64 in. long, fitted with six 32-in. plate-glass and six upright green enamelled glass plates at back, 15s.; mahogany-top counter, 11 ft. 3 in., return end 3 ft. 4 in., five mahogany doors in front, glazed and enamelled, glass knobs and 13 large deal drawers under; offers wanted; refitting another shop to move into. Moore, Chemist, New Southgate.

Miscellaneous.

Several cwt. sound garlic, cheap. R. O. Mason. Bromsgrove.

Gallon copper still, worm and furnace complete, very cheap, 35s. 25 Queen Street, Ramsgate.

Outside globe lamp, 21 in. diameter, ground glass, ruby lenses, fitted with two burners. 109/16.

Glauber salts in 1-cwt. bags, f.o.r. Llanelly, 3s. 3d. per cwt., bags included; remittance with order. Daw, Eastfield, Llanelly.

Two triturating machines for homeopaths, without mortar, price 40s. each; copper-jacketed pan on stand, 16 gallons, 50s. W. 156 London Road, Manchester.

For sale, 2 lbs. ol. lavand aug., 28 lbs. gum shellac, 10 lbs. ol. earyoph. nng., 1 "Enterprise" tincture-press, 1 marble mortar, diameter 14 inches, pestle to match. Cottrill, Shepton Mallet.

Harness' electropathic belt, ladies', 28 in., cost 42s.; only worn few times; clean; also gentleman's ditto, 27 in., cost 21s.; will sell both for 20s.; also pocket B.I., 1885 (never used), 1s. 6d. "Ochemicus," 20 Hamilton Street, Old Trafford, Manchester.

What offers? Maclaren's "Atlas of Venereal Diseases," 30 coloured plates, never used, cost 3l.; two medium slipper bed-pans, perfect. Richardson, Chemist, Hestle Road, Hull.

Enterprise tincture-press, "Martindale" 1884, Fowne's "Inorganic Chemistry," Miller's do., Thorpe do. (metals), Thorpe do. (non-metals), Ure's "Materia Medica," Owen's "Conspectus," Napier's "Electro-Metallurgy." Sharpe, Gloucester.

WANTED.

Cheek till; also address of dealer in German rectified spirit. 119/7.

Bathing caps wanted; address of makers will oblige; surplus patents for sale. 119/22.

1 or 2-quart tincture-press, stump forceps. Sharpe, Gloucester.

Daniel's dandelion coffee. C. Ridley, Chemist, Newcastle-on-Tyne.

Medical surgical dictionary. Full particulars and cash price to Turpin, Chippenham.

Bottles, shop rounds, glass cases, lamp lenses. E. Blackmore, 173 Regent Street.

Attfield's "Chemistry," last edition. State lowest price to Willson, Chemist, Bradford-on-Avon.

Podestal, splatoon, and nickel-plated forceps. Particulars and lowest cash price to Oglesby, Chemist, Barnsley.

1 or 2 cwt. of Spouncer's milk substitute, in 14 and 28 lb. bags; lowest cash price. James Watson, Rose Corner, Norwich.

Large marble mortar, capacity not less than 8 gallons. X. Y. Z., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.O.

Entire fittings for Chemist's shop, size 18 ft. 6 in. by 14 ft. 6 in.; must be of best quality. J. Gregory, Balacava Street, Stockton-on-Tees.

Nest drug drawers, counter, and shop-rounds; must be in good condition and cheap. Address, T. M., 62 Lambert Street, Beverley Road, Hull.

"Arcana Fairfaxiana," also 17th and 18th century herbals; state particulars and lowest price. Davison, Pharmaceutical Chemist, Cromer.

20-oz. and 30-oz. N.M. and W.M. York glass shop-rounds, with phototype recess labels. Send list of labels and lowest cash prices to Oglesby, Chemist, Barnsley.

Shop-fittings, show-cases, shop-rounds, carbos, utensils, and every necessary for fitting up a branch. Send size, &c., and lowest cash prices, to Oglesby, Chemist, Barnsley.

To purchase any old books (except religions) or any early works of Dickens, Almsworth, Thackeray, Lever, any poems before 1850, or sporting or angling hooks. A. H. Miller, Horsham.

Address Wanted.

Alfred B. Drako, caterer to officers' mess, Militia Encampment, Mansfield, and R.H.R. Sherwood Lodge 1890. 116/33.

FRIABLE PILLS!

—UPJOHN—



Crushed to a powder under the thumb.



Crushed to a powder under the thumb.

TO CHEMISTS—

Assuming that it is conceded that Pills or Tablets MADE WITHOUT COMPRESSION or EXCIPIENT, so that the drugs employed are left in an UNCHANGEABLE, DRY, AND POWDERY FORM, are preferable to those made by methods employing either excipient or pressure, and yielding products that soon become hard and impermeable by the digestive juices, and that the porous, dry, and friable condition of the contained drug is a measure of the permeability and solubility of the pill by the digestive juices, we invite your attention to THE UPJOHN FRIABLE PILLS, which can be CRUSHED TO A POWDER under the thumb, as per illustration.

This will demonstrate clearly their friable and powdery condition, and we ask you at same time and in same manner to crush or try to crush pills or tablets of other makers.

We also invite other comparative tests, the clinical test being the one on which the decision should be largely based.

Samples and List of Formulæ, with Prices, to any Chemist's address on application to

JOHNSON & JOHNSON, LIMITED,

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(Sole Agents in Great Britain and Ireland for the UPJOHN PILL AND GRANULE COMPANY.)

TO WHOLESALE DRUGGISTS, &c.

Buyers of the following are invited to send for Samples and Prices before placing their Orders elsewhere. They will find it to their **ADVANTAGE** to do so.

BENZINE. In 6d. and 1s. bottles.

CEMENT. To retail 1d. and 3d.

CASTOR OIL (Crystal, Tasteless). In bulk, or packed in bottles from $\frac{1}{2}$ oz. to 1 lb.

COD LIVER OIL. In casks, or packed in 6d. and 1s. bottles.

CORN SOLVENT. To retail 1d. and 3d.

FEEDING BOTTLES. All kinds.

FLY PAPERS.

FULLER'S EARTH (Powdered). In bulk or in packets.

GLYCERINE. In bulk or packed in bottles, from $\frac{1}{2}$ oz to 1 lb.

COLZALINE (or Golden Oil). Our Speciality.

HAIR OIL. In bulk, or packed in bottles, from $\frac{1}{2}$ oz. to 1 lb.

INSECT POWDER. In bulk, or packed in 1d., 2d., 3d., and 6d. boxes.

LIME CREAM. In 6d. and 1s. bottles.

MENTHOL CONES. Extra Powerful Brand. To retail 1d., 2d., 3d., 4d., and 6d.

MACHINE OIL. In bulk, or in 1d., 2d., and 6d. bottles.

POMADES. All kinds, to retail from 1d. upwards.

PILLS. In bulk, or packed in 1d. boxes.

SEIDLITZ POWDERS. In boxes.

TOOTHACHE TINCTURE. In 1d. and 3d. bottles.

VASELINE SUBSTITUTE.

In these days of competition, buyers should seek the best markets. We confidently state that no other firm offers the advantages that we do.

WRITE FOR SAMPLES AND PRICES.

W. & H. JACKSON, 14 MANESTY LANE, LIVERPOOL.

LAZELL'S SACHETS.

In consequence of the great popularity and success of these Goods last season, Messrs. LAZELL, DALEY & Co. (New York) have forwarded me another large consignment. I am also able to reduce the price this year to **16s. per dozen**, put up in the same style as before, assorted in one-dozen boxes—Heliotrope, White Rose, Jockey Club, and Violet.

Messrs. LAZELL, DALEY & CO.

Have also forwarded me a small consignment of their two newest Perfumes—

"ROSALIA" AND "IRISINIA."

These Goods are most elegantly packed in their unique style, each bottle in a fancy box. A Handsome Showcard accompanies each half-dozen. Chemists who like the newest and finest goods should place a small order for these Perfumes: 2-oz Bottles, **42s. per dozen.**

May be supplied through all the Wholesale Houses, or direct from

HENRY C. QUELCH, LUDGATE SQUARE, LONDON, E.C.
LUDGATE HILL,

THE SOAPMAKERS' OPPOSITION TO LEGISLATION AGAINST ADULTERATION

The following is the resolution which, on account of the opposition of the soapmakers at a recent meeting, was only passed by a majority of one :—

THE RESOLUTION THEY OPPOSED (carried).

“That, in the opinion of this meeting, legislation on the lines of the Adulteration of Foods Acts is desirable in the interests of the public health, with a view to prevent the sales of adulterated, injurious, and fraudulent compounds now sold under the name of soap.”

THE AMENDMENT THEY SUPPORTED (lost).

“That, in view of the extraordinary development of soap manufactured in this country during the last ten years, this meeting hesitates to place any Government restrictions upon the industry, feeling confident that soaps injurious to the skin are easily detected and rejected by the public.”

In other words, people are to be made to use “soaps injurious to the skin” in order to know which soaps not to use. As soaps containing sugar, resin, sand, a lot of water, &c., do not inflame the skin, people are not suspicious of them, and so must continue to pay for soap and get “soap and sand,” or “soap and sugar,” or “soap and water,” &c. If one asks for and pays for soap, why should he be supplied in part with sugar, sand, water, &c.? If there are poisons in soaps, should not the public be protected against them? The arguments of the soapmakers who favour the present conditions are much the same as were those of the manufacturers of oleomargarine, who wanted no legislative interference on account of “*the extraordinary development*” in trade.

As a matter of fact if a soap contain 40 per cent. of water, 30 per cent. of sugar, or is otherwise sophisticated, the fact should be stated. Butterine should not be sold for butter, nor watered milk nor watered soap for the genuine article.

“**Vinolia**” Soap—Floral, 6d. ; Medical (Balsamic), 8d. ; and Toilet (Otto of Rose), 10d. per Tablet ; vestal, 2s. 6d. per Tablet.

“**Vinolia**” Shaving Soap—1s., 1s. 6d., and 2s. 6d. per Stick, and Flat Cakes, in porcelain-lined metal boxes, 2s.

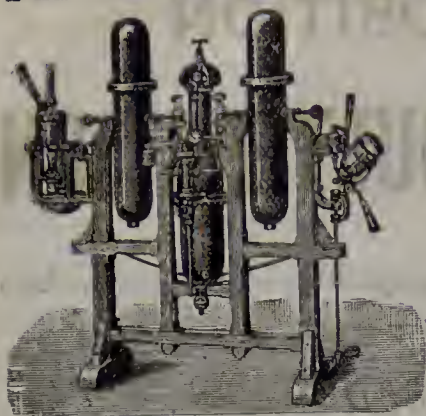
“**Vinolia**” Cream (*for Itching, Eczema, Chaps, Chilblains, &c.*)—1s. 9d., 3s. 6d., and 6s. per box.

“**Vinolia**” Powder (*for the Toilet, Nursery, Skin Roughness, &c.*), in Pink, White, and Cream, 1s. 9d., 3s. 6d., and 6s. per box.

BLONDEAU ET CIE., RYLAND ROAD, LONDON, N.W

A. LOZÉ & CO., LD.,

**281 WEST DERBY ROAD,
LIVERPOOL.**



INDISPENSABLE TO CHEMISTS.

THE ONLY PRACTICAL SODA WATER MACHINE.

Self-working by Chemical Action. No Skilled Labour.

NOT LIABLE TO GET OUT OF ORDER OR NEED REPAIRS.

Produces the Purest Aërated Water made.

Machines, in two sizes, at 25 guineas and 30 guineas. All complete. With the smaller a lad can make easily in ten hours twenty dozen Syphons or 100 dozen Bottles; with the larger, thirty dozen Syphons or 175 dozen bottles.

INDIA.—Machines on view at Messrs. Bertie-Smith & Co's, Bombay.

COUNTY LABORATORY, 30 BROWNLOW STREET, LIVERPOOL, October, 1888.

I have examined during the present year the Machines for making Aërated Waters invented by Mr. Lozé, and I have formed a very high opinion of them. No lead is found in any part which comes in contact with the water, and the process is one which produces absolutely pure Carbonic Gas. Accordingly I find that the effervescing water produced is free from every injurious metal or contamination, and has a better flavour than that produced in this ordinary way.

J. CAMPBELL BROWN, D.S.O.

CHEMICAL LABORATORY, 20 ALBERT GATE, MANCHESTER, 21st August, 1889.

GENTLEMEN,—At your request I have visited the works of Messrs. A. Lozé & Co., of Prescot Street and Tuebrook, Liverpool. I have inspected his patented Apparatus for producing Aërated Waters, and have analysed the Aërated drinks manufactured. The results of analysis quite justified the inferences which were drawn from a knowledge of the materials used. Thus, instead of using ordinary whiting (as the source of carbonic acid gas), which gives off small quantities of offensive gases when acted upon with acid, Mr. Lozé uses one of the pure soluble bicarbonates of either Potash or Soda; the use of this salt enables the apparatus to be much simplified in form, as no gas washer is required, but the carbonic acid gas may be led at once into the liquid in the Saturating Cylinders. The Aërated drinks produced are of very high quality, both as to purity and as to Aëration, and the apparatus possesses the merit of extreme simplicity and efficiency.—Faithfully yours,

G. ESTOUCOURT, F.I.C., F.I.

Messrs. A. Lozé, & Co., LIMITED.

DITTON, 10th April, 1890.

Dear Mr. Lozé,—I am pleased to inform you that I have been able to work the Machine sold to me by you without previous knowledge. With your patent Turnover I can bottle Patent Stoppers at the rate of two dozen per minute. Syphons and Corked Bottles I can fill much quicker than what you advertise the Machine to do.

The Aërated Waters produced have been sampled by a number of gentlemen, and pronounced by them to be of a most excellent quality.—Wishing you every success, I remain, yours truly,

ROBT. J. GOW, F.O.S.

SYPHONS & SELTZOGENES PORCELAIN LINED HEADS.

NON-METALLIC.

BY ROYAL LETTERS PATENT, No. 15686.

Absolute Purity of the Water ensured. Suitable for all kinds of beverages, sweetened, medicinal, or otherwise. Each Syphon and

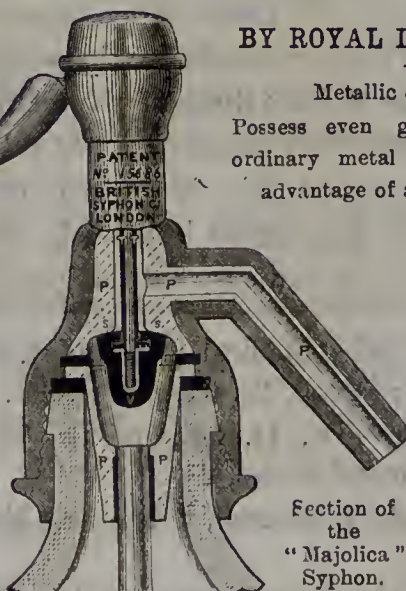
Seltzogene guaranteed.

Metallic contamination utterly impossible.

Possess even greater strength and durability than ordinary metal heads, combined with the immense advantage of always being clean and non-oxidisable.



We still continue to warrant our
**ORDINARY
SYPHONS &
SELTZOGENES,**
as hitherto,
to be of the finest
tin, entirely free
from lead, and
FIRST QUALITY
IN ALL RESPECTS.



Section of the
"Majolica"
Syphon.

WRITE
FOR SAMPLE
AND SEE
OPINION OF
THE ENTIRE
TRADE PRESS.

Prices and
Particulars
on application
to the
Patentees and
Manufacturers.



THE BRITISH SYPHON MANUFACTURING CO.

EUGSTER & KOERTGEN, PROPRIETORS
26 GRESHAM BUILDINGS, GUILDHALL,
WORKS-LAMBETH.

LONDON, E.C.

SYPHONS

BEST AND CHEAPEST.

FIRST QUALITY GLASS. GUARANTEED TESTED. TAPS PURE BLOCK TIN
 FREE FROM LEAD.

Syphons of all Colours,
 White, Blue, Green, and
 Amber.

Also with Glass Engraved,
 and Tops Nickelled or
 Silvered.

Syphons with Short or Long
 Levers

And all other Models to
 order.



PRICE

1/4 1/2

EACH.

PRICE

1/4 1/2

EACH.

E. THESSIER, LATE THESSIER-FEVRE,
 MANUFACTURER
9 RUE CASTEX (near the Bastille), **PARIS.**

ESTABLISHED 55 YEARS AT 308 RUE ST. HONORÉ.

HIGHEST AWARD AT THE INTERNATIONAL EXHIBITION, LONDON, 1885.
TRADE MARK Registered May 31st, 1887.

THE PIONEER TEMPERANCE BEVERAGES.—*Ch. Eng. Temp. Chron.*

BECKETT'S

FRUIT SYRUPS & CORDIALS

"First-class Beverages."—*The Grocer.*
"Have an established reputation."—*Noncon-*
formist.

"Delicious beverages."—*Scottish Good Templar.*
"Beckett's Fruit Syrups are not to be excelled."
—*Anti-Adulteration Review.*

"Exceedingly pleasant."—*The Rock.*
"Invigorating and refreshing."—*Manchester*
Courier.

Price Lists, Testimonials, and other information sent post free on application to the Manufacturer—**W. BECKETT, Heywood, Manchester**
Wholesale and Export Agents—Barclay & Sons (Lim.), 95 Farringdon Street, E.C.; W. Edwards & Son, 157 Queen Victoria Street, E.C.;
J. Sanger & Sons, 489 Oxford Street; J. Woolley, Sons & Co., Manchester; Goodall, Backhouse & Co., Leeds.

MILD DRINKS.

Cherry. Raspberry.
Strawberry. Lime Fruit
Black Currant. Lemon.
Orange. Jargonelle Pear
Pineapple.
Raspberry Vinegar.
Orange and Quinine.

HOT DRINKS.

Winterine. Honey Liqueur
Aromatic Black Currant.
Gingerette. Ginger Lemon
Peppermint. Olove.
Elderberry. Syrup of Hops
Lime Fruit Cordial.
Raspberry Cordial.

**PASCALL'S GOLDEN MALTEX**

PATENTED.

Contains 25 % of Allen & Hanburys' Extract of Malt.

A NOVEL CONFECTION.*Delicious Flavour. Brilliant & Attractive Appearance.***SELLS AT SIGHT.***Vide Dr. Tanner's Report, and The Chemist and Druggist, April 20th.*

1/- Bottles, 9/- per dozen; 1-lb. Bottles, 18/- per dozen;
and in 2-lb. and 4-lb. Bottles, 1/4 per lb

HANDBILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES, OR OF THE MANUFACTURER,

JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.**SYPHONS & SELTZOGENES**

**SODAWATER
MACHINERY**

AND APPLIANCES

BRATBY & HINCHLIFFE LTD

ANCOATS 146 MINORIES

MANCHESTER & LONDON EC

81 ROBERTSON STREET, GLASGOW.

All our Seltzogenes are
manufactured on the well-
known "Fevre" System,
and each one is thoroughly
tested before leaving our
works.

**PRICES.**

SYPHONS ... 1/6 1/8 and 1/10 each.

SELTZOGENES.

1	2	3	4	5	8 pint.
5/6	6/2	7/	8/	9/11	15/6 each.

PHOSPHO-CITRIC ACID

Is the only **PURE**
acidifying principle that
has ever been offered
to the Mineral Water
Trade.

Price 10d. per lb. Write for Sample.

Read the following unsolicited
Testimonial.

HASSALL & CO.
King's Cross,
LONDON.



GOLD
AWARDED AT THE INTERNATIONAL FOOD AND HEALTH EXHIBITION, LONDON, 1890,
FOR PURITY AND EXCELLENCE.

We have now discarded Citric,
and you are at liberty to make
use of this if you think proper.

Yours faithfully,
THOMAS MAYO & CO.

AVOID TRADE APES AND THEIR WORTHLESS IMITATIONS.

Sept. 3/90.
Oxford Street,
London, W.
(Established 1808.)

Messrs. HASSALL & CO.

Gentlemen,—

Kindly forward
another 18-Gallon
Cask of Phospho-
Citric Acid. We con-
gratulate you on your
recent improvement,
for samples of our Waters
were sent to one of the
first Hospitals in the West
End made from yours and
Citric Acids, and yours was
chosen as the purest and best.

JEWSBURY & BROWN'S (MANCHESTER) SPARKLING TABLE WATERS, UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
SELTZER WATER.
POTASH WATER.
LITHIA WATER.
SIMPLE
AERATED WATER.



LEMONADE.
GINGER ALE.
QUININE TONIC.
GINGER BEER.
HOREHOUND BEER

EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."
FRANCIS JONES, F.R.S.E., F.C.S.
On the whole, I have no hesitation in stating that your Aerated Waters are of the highest standard of purity which is practically attainable."
LOUIS SIMBOLD, F.I.C., F.C.S.

"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but Citric Acid."
"I took a sample of the water used in your manufactory, in the preparation the Aerated Waters, and found it, as was the case with the completed compounds entirely free from lead, copper, or any injurious matter whatever."
C. ESTROUET, F.C.S., F.C.I.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination

CARRIAGE PAID AND ON RETURNS.

113 MARKET STREET, and 44 DOWNING STREET, MANCHESTER.

EXPORT



THE DRINK over all others FOR WINTER!!!

GINGER

EXCELLENT IN EVERY RESPECT.

PERFECT AROMA, BODY & KEEPING PROPERTIES.

PREPARED SOLELY BY

AINSWORTH, CLAYTON & JOWETT.

Pharmaceutical & Wholesale

ALE

ESSENCE.

CHEMISTS.

LIVERPOOL & BLACKBURN.

TRIAL SAMPLE, POST FREE.

NEW ESS. LEMON, ORANGE, ETC.

IT is with great pleasure that we have again the opportunity of addressing our numerous friends on the subject of **NEW ESSENCE OF LEMON.**

It is now two years since it was our privilege to inform the trade that we had started a factory in Messina, for the manufacture of the above article. As we fully expected, our bold venture caused our competitors, both here and elsewhere, to raise an opposition against us of a most bitter, unfair, and unscrupulous character. We venture to think that nothing could have been more satisfactory to ourselves that this opposition was raised, for, instead of doing us the injury that was intended, it has been the means of drawing the attention of buyers to our article, thereby causing a considerable number of Consumers with whom we had not hitherto done business to consider the advisability of trying our quality, with the result that they have found it, as we have so emphatically stated on previous occasions, of **vast superiority over anything that has been shown on this or any other market.**

We can boast of a success in our "**W. J. B. SPECIALITY ESSENCE OF LEMON**" such as we did not dare to anticipate, our sales during the last season having far exceeded our calculations. But the point upon which we are specially elated is, consumers are more and more becoming fully acquainted with its superiority, and those who have hitherto purchased the lower qualities from us and others, after due examination, are one by one being convinced of its advantages and converted to its use. What then are its great qualifications? Simply that it is made carefully and well, from **SELECTED FRUIT ONLY AND ABSOLUTELY PURE.** Although somewhat higher in price than the qualities usually called "the best," its greater strength makes it cheaper in use, imparting, at the same time, a far superior flavour.

With regard to the ordinary commercial qualities, we claim also to be exceptionally placed; being on the spot we are enabled to take advantage of favourable markets.

Finally, we wish to mention a few words on the prospect of the crop, which, we regret, does not seem at all brilliant at present. Our friends will no doubt have seen, by our various market reports, the crop of lemons is now ascertained to be unusually limited, and the quality of the fruit being exceptionally good, a larger quantity than usual will be used for packing. Therefore, in the absence of "refuse lemons," from which the ordinary Essence is made, both Essences and Lemon Juice must be dearer as the season advances; anything like a repetition of last year's figures is out of the question.

We have received overland by Grande Vitesse a small copper, the first manufactured this season at our works, Villaggio Gazzi, Messina, and the exceptional quality of the fruit this year will enable us to offer a **PERFECT ARTICLE.**

One of our partners is in Messina as usual, superintending the manufacture.

W. J. BUSH & CO.

ARTILLERY LANE, LONDON.

TRADE MARK.



THE LANCET:—"About one-third of the whole dry matter consists of *true peptone*, and another third of *albumose*. A variety of *albumen uncoagulated by heat*."—July 12th, 1890.

VIENNA POLIKLINIK:—"Your preparations . . . have proved excellent means of nutrition, and for strengthening individuals of great weakness and poverty of blood."—Prof. SCHNITZLER, Sept. 19th, 1890.

DENAAYER'S

LIQUID STERILISED PEPTONE OF MEAT.

Considerably more nutritive than beef, and more palatable than home-made beef-tea; elegant in appearance. No digestive function need, or can, be exercised, all having been fitted for immediate absorption. Life can be supported indefinitely upon it, and it does not clog upon the most fastidious and delicate palate. It contains all the stimulative extractives and the mineral salts in due proportion, as they exist in beef. 2s. per bottle, ready for use.

LIQUID PEPTONATE OF IRON (Denaeyer), 1s. 6d. per bottle, guaranteed to contain 10 per cent. of the salt in solution, equal to 330 per cent. of the metal.

PULVIS FERRI PEPTONATIS (Denaeyer), 4s. per ounce bottle, a beautiful reddish-grey powder, soluble in water, compatible with all alkaline or neutral medicines.

TRUE PEPTONATE OF IRON is the produce of *our laboratory alone*, and is *our discovery*. The salt is precipitated from its solution in presence of the acid gastric juice, redissolved and absorbed with great rapidity in the alkaline medium met with in the duodenum, so that it does not interfere with digestion, and it is not chemically altered by the juices of the alimentary canal. Should be administered before meals, and its flavour requires no disguise.

PAMPHLETS AND SAMPLES FREE TO MEDICAL MEN.

Wholesale General Agents—Edinburgh: DUNCAN, FLOCKHART & CO. Glasgow: OLD APOTHECARIES' COMPANY (Limited).
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DENAAYER'S PEPTONIDS AND EXTRACT OF MEAT COMPANY (LIMITED),
118 BISHOPSGATE STREET WITHIN, LONDON, E.C.



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S. BECKETT,
BARMSTON ST., HULL,
IMPORTER OF
**STARCH, MATCHES, AND
METAL POLISH.**

Samples and Prices sent on receipt of Trade Card

GEO. MASON & CO.'S
ESSENCE OF BEEF.



HOSPITAL FOR CONSUMPTION, BROMPTON.

Order No. 1090.

"Please supply 120 tins Mason's Essence of Beef as before."

TRADE MARK.

"O.K." BOUILLON.

The "O.K." Bouillon is the best and cheapest Beef Tea ever put before the public. It is made in England from British Beef. It can be sold as low as 6d. per tin.

CONCENTRATED BEEF TEA, MEAT LOZENGES.

MASON'S MALTED FOOD FOR INFANTS.

PRICE LISTS POST FREE.

417 & 419 Kings Road, Chelsea, London, S.W.

ST. MARY'S HOSPITAL, PADDINGTON.

Order No. 802.

"Please send 1st 'one' 13 Gross Mason's Essence of Beef."

Natural arsenious and

Guber Spring
ferrugineous
Mineral-water.

SREBRENICA in Bosnia.

Will be found of great value in the treatment of
Anaemia, Chlorosis, Intermitting fever,
Malaria, Diseases of the Nerves, &c.

Easily to digest.

HENRY MATTONI, VIENNA.

Write for pamphlets and particulars to

W. BEST & SONS,
22, Henrietta street, Cavendish square,
LONDON, W.

To be had of all Chemists and Druggists.

CITED BELOW ARE A FEW REPORTS ON

CAFFYN'S LIQUOR CARNIS

Which are the result of Practical Examination by those qualified to express an opinion.

"I have much pleasure in reporting that large quantities of Caffyn's Liquor Carnis have passed through my hands during the year, and I have taken frequent and full opportunity of submitting it to a thorough chemical and physical examination. My experiments enable me to state that *Caffyn's Liquor Carnis* is quite a unique preparation, having a special value both as a food and medicine, which renders it far superior to ordinary meat extracts. The points in its favour which together place it in a high position among meat foods may be thus enumerated:

"1. It is very rich in albuminoids, or flesh and tissue forming matter.

"2. It is full of soluble phosphates, or bone-forming ingredients.

"3. It contains the iron of the blood in its natural colloid form.

"4. Odour and taste are agreeable.

"5. It keeps well, maintaining its properties unaltered for an unlimited period.

"The fact should be emphasised that most meat extracts are simply tasty stimulants, often excessively salted, the chief agents of nutrition—the albumens—having been removed by heat and coagulation; whereas *Liquor Carnis* contains all the albumens and extracts of the meat in their natural state, and is thus a *perfect meat food*."

A. W. GERRARD, F.C.S.,
Teacher of Pharmacy and Materia Medica at University College, London.



TWO SHILLING BOTTLE

Double the above size, 3/6.

The Journal of Laryngology and Rhinology says:—

"We have tried the preparation, and can speak highly of its nutritive value. Moreover, it is readily assimilable and not unpalatable. We consider it a preparation of undoubted value in cases of Wasting Disease and of Debility."

A VERY VALUABLE FOOD

"I have been using your *Liquor Carnis* now for some time, and I find it a very valuable food, and it is well liked by patients. I found it especially useful in cases where vomiting or irritation of the stomach occurs, and in the Fever Cases the patients could tolerate it when other forms of nutriment were rejected. As it contains a great amount of nutriment in so small a bulk, I look upon it as a most valuable article for the sick."

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M.D., F.R.C.S.I., M.R.I.A.
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Specimens free and carriage paid from the Manufacturers and Patentees, the

LIQUOR CARNIS CO., LIM.

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NESTLE'S FOOD

AN ENTIRE DIET FOR INFANTS.



Supplies all the elements necessary for the complete nourishment and growth of the human frame. NESTLÉ'S FOOD, being partly composed of Milk, is complete and entire in itself, and requires simply the addition of water to make it instantly ready for use. It is not merely an auxiliary, like other Infants' Foods, which require milk to be added in preparing for use. Recommended by the highest Medical Authorities as the nearest equivalent to Mother's Milk

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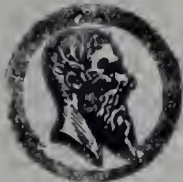
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In 1-oz., 2-oz., and 4-oz. Packets, and $\frac{1}{4}$, $\frac{1}{2}$, 1 lb. Tins only.



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BEEF,

MUTTON,

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SPECIALTIES FOR INVALIDS.
CONCENTRATED BEEF TEA, VEAL, MUTTON & CHICKEN BROTHS;
TURTLE SOUP & JELLY, CALF'S FOOT JELLY, MEAT LOZENGES
ESSENCES OF BEEF & MUTTON, VEAL AND CHICKEN
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SAUCES.

WORCESTER, READING, HARVIE, YORK-
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SILVER MEDAL.

	Per gross.	Extra Quality
1d. Sample Bottles, in dozen parcels	5/3	6/3
" " in 1/2-gross boxes	5/9	6/9
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—ROYAL— CAFE SAUCE

Rich and Fruity, of Exquisite Flavour.

Square Glass Stoppered Bottles, contain nearly 1/2 pint
Imperial, neatly wrapped and labelled.

PRICE 48s. PER GROSS.

Small Sample Bottles, at 8s. per Gross.

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(For mending China, Glass, &c.)

1d. Bottles, on show cards containing 1/4 gross, per gross 5/3
Gives universal satisfaction.

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Very saleable, because can be relied upon.

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1d. Bottles, in 1 dozen parcels, per gross ... 6/6

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1d. Bottles, packed in dozen parcels, per gross ... 6/3

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1d. Bottles, packed in dozen parcels, per gross ... 4/3

INSECT POWDER.

For killing Bugs, Fleas, Beetles, Moths, and all kinds of
Insects which infest Birds and Birdcages, without any fear
of hurting the smallest Bird. Full directions with each
package.

1d. tins, perforated lids, per gross ... 5/-
On show cards containing 1/4 gross.

This is the most saleable article ever offered to the trade;
the quality cannot be improved upon, and the public get
value for their money.

For sums under £1 please remit Postal Order, not CHEQUE, and oblige. All Goods free to Rail or Docks in London, for Cash against Invoice.

SAMPLES OF ANY KIND OF SAUCE SENT POST FREE ON RECEIPT OF BUSINESS CARD.

PETER TYRER, 70 LONG LANE, BOROUGH, LONDON, S.E.

Also through PANTIN, BURGOYNE, TRAVERS, EVANS, EVANS SONS & CO., DROITWICH SALT CO., and all Wholesale Houses in London.

GOOD 1^{d.} LINES. CHEMISTS

CAN SAVE TIME & MONEY

by selling my "Plain Label" * Lines, and should remit prices
quoted for sample 1/2-gross lots, sent carriage paid
(Sauces excepted), on first occasion; if not satisfactory, I
will pay carriage back and return cash.

Yours faithfully, PETER TYRER.

*PENNY MENTHOLS.

On 1/2-gross Cards, at 5/6 and 6/6.

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6 in a box. 1/2-gross Cards, at 4/6.

SPECIAL NEW LINE.

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6 PILLS IN GLASS TUBES. On 1/2-gross Cards, at 5/6.

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*WORM CAKES (Gingerbread).

Same as supplied for years to the largest houses in London.

In 1-lb. tins (tins free). about 60 cakes to the lb., per lb. ... 1/2

1/2-gross tins, per gross ... 4/6

* The "SWEETMEAT" WORM CAKES, 1d. each.

1/2-gross tins, per gross ... 6/-

* These Cakes are readily eaten by children when they will not touch the
ordinary Brown Worm Cakes.

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1d. Boxes, in 1/2-gross glass top boxes, per gross ... 3/3

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1d. Packets, on 1/2-gross cards, per gross ... 3/6

*COURT PLASTER.

(Black, White, or Pink)

1d. Packets, on 1/2-gross cards, per gross ... 4/-

TOOTH ENAMEL.

(Gutta Percha Enamel for stopping Decayed Teeth.)

In 1d. Packets, on 1/2-gross cards, per gross ... 4/-

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(Camphor Balls for Chapped Hands.)

1d. Balls, also on 1/2-gross cards, per gross ... 5/6

TO THE
CHEMISTS & DRUGGISTS
OF
GREAT BRITAIN.

TELEGRAPHIC ADDRESS:

COLEMAN,

GEORGE'S, NORWICH.

St. George's, Middle St.

NORWICH,

December, 1887.

The Excise Authorities having created a difficulty as to the sale of Medicated Wine containing a certain percentage of alcohol, we obtained in January last, from the Inland Revenue Authorities, permission to sell our WINCARNIS,* or Liebig's Extract of Meat and Malt Wine, **WITH QUININE**, without a Wine Licence, and many Chemists not holding a Wine Licence have sold considerable quantities. In order further to meet the requirements of the trade, we have introduced a Liebig's Extract of Meat and Malt Wine, **NON-Alcoholic**, made from the juice of the Grape, Liebig's Extract of Meat, and Extract of Malt. This also can be **SOLD WITHOUT A WINE LICENCE**. Your orders will oblige either direct or through the Wholesale Houses.

Yours obediently,

COLEMAN & CO., LIMITED.

*N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each.
Trade prices on application.*

P.S.—Where the Magistrate's Certificate is not held we are willing to pay the entire cost of a Retail Certificate (the holder of which can sell any kind of Wines) if an assorted order of 6 dozen is sent us of any of our preparations. List on application. Our WINCARNIS,* or Liebig's Extract of Meat and Malt Wine **WITHOUT QUININE** commands a very large sale, and is recommended by over two thousand medical men who have sent us testimonials in its favour.

SOLE MANUFACTURERS—

COLEMAN & CO., LIMITED,

ST. GEORGE'S, NORWICH,

AND 3 NEW LONDON STREET, LONDON, E.C.

* WINCARNIS is a NEW NAME, registered to prevent fraudulent imitations.

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HOUSEHOLD
SPECIALITIES.

YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each

GOODALL'S BAKING POWDER.

The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s. 2s. and 5s. Tins.

GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2s. 6d., and 1s. each

GOODALL'S BLANCMANGE POWDER

Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger-Beer. Packets, 3d. and 6d.

GOODALL'S BRUNSWICK BLACK,

For Painting Stoves, Grates, Iron, Tin, &c. 6d. and 1s. Bottles

GOODALL'S LAVENDER WATER.

A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

GOODALL'S PLATE POWDER,

For Polishing and Cleaning all Metals. Boxes, 6d., 1s. and 2s.

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In 1-pint, 1-pint, and Quart boxes, 3d., 6d., and 1s. each.

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AND

DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

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THE "WINGED LION"

Flower & Vegetable Seeds



In 1d. Pictorial Packets, assorted to order,
6s. per gross, on $\frac{1}{2}$ gross cards or in 2 gross
Special Counter Show Cases, with gold
lettering. Cases empty, 1s. each.



TRADE MARK.

With all orders for 6 gross and upwards we send free a large Descriptive Plate, Printed in Colours, varnished and mounted on rollers. This new and beautiful Show Card comprises representations of 50 select varieties, and is a handsome and artistic advertisement. We charge this plate 1s. each when required with orders less than 6 gross.

The "Harrison" Show Case, as here represented, made of metal Japanned Black, with Bronze Lettering, to hold 30 varieties, or 2 gross in all. Price 3s. 6d. each empty.

BIRD SEEDS IN PACKETS

(Winged Lion Brand).

Put up in cardboard cases with attractive design in colours. The seeds are carefully selected from the finest stocks, and are free from all dirt and dust.

This combination of Bird Seeds is allowed by the highest authorities to be the best obtainable for all kinds of cage birds.

PRICE.

1d. packets	...	...	...	...	...	...	9s. 0d. gross.
2d. "	...	...	...	...	...	...	15s. 6d. "
4d. "	...	...	...	...	...	...	26s. 0d. "

Packages extra—allowed for on return.

SEND POSTCARD FOR COMPLETE LIST OF SEEDS IN BULK AND IN PACKETS.



POTTER & CLARKE, Wholesale Botanic Druggists,
5, 6 & 7 RAVEN ROW, ARTILLERY LANE, **LONDON, E.C.**

INDIAN CERATE,

PREPARED BY

READE BROTHERS & CO., WOLVERHAMPTON.

This popular Ointment, in demand in all parts of the country, is supplied to Chemists as follows:—

1d. ... 7s.; 2d. ... 14s.; 4d. ... 28s. per gross

Free on rails Wolverhampton; nett cash.

Small quantities per post paid at 8s., 16s., & 32s. per gross

Fry's Pure Cocoa



To secure this article
ask for
**FRY'S PURE
CONCENTRATED**

NEWTON-MASON'S

Aerated or Soda-water

FOUNTAIN.

A splendid Ornament for the centre of a Chemist's shop, 5 ft. high. Nickel or Silver Plated Serpent; Plate-glass.



Registered Nos.
146335, 141892, and
146336.

Marble, Oak, or
Mahogany, or
Walnut as re-
quired.

Made either
Round, Square,
or Octagon.
Orders attended
to in rotation.

Prices from
£15 to £20
complete.

Can be forwarded
through any
London House.

ONE FOR THE BABY NEWTON-MASON'S



Nickel-Plated

FOOD REGULATOR

The only perfect one, and is the best and cheapest in the market. Can be sold for 1d. Each one is perfect in make, and, if taken in quantities could be given away with a 1s. Feeding Bottle. Advantage—you do not have to pull the feeding bottle fittings off to fix it. It can be put on in a second.

Sole
Manufacturer, **A. NEWTON-MASON,**
113 High St., West Bromwich,
Nr. BIRMINGHAM, ENGLAND.

P. O. or remittance must accompany each order, or can be obtained through any London House.

The top table is Plate-glass, and the second table underneath is Marble, and the outlet is Serpent, perfectly designed and chased. Can be had either Silver or Nickel Plated. It stands from 4½ ft. to 5 ft. high; from 2 ft. to 2½ ft. in diam. The Cylinder is made of best copper, tin-lined, and holds about 15 quarts. A great addition to a Chemist's shop, as it soon pays for itself, and then forms a regular income. Fruit Syrups of all kinds are kept on the marble to be mixed with the aerated water.

Sole
Manufacturer, **A. NEWTON-MASON,**
CHEMIST,
113 High St., West Bromwich,
BIRMINGHAM ENGLAND.

Sole Proprietor of
NEWTON-MASON'S
Horehound & Linseed.



LINCTUS.

Can be obtained from all London
Wholesale Houses, or

A. NEWTON-MASON,
113 High Street, West Bromwich,
Nr. BIRMINGHAM, ENGLAND.

And also of
Dr. SIME'S World-Famed
PEPSINE MIXTURE.

Trade
PEPSINE MIXTURE

Mark.
Can be obtained through all London
Wholesale Houses, or the Proprietor.

A. NEWTON-MASON.
113 High St., West Bromwich,
Nr. BIRMINGHAM, ENGLAND.

H. HAENSEL'S

OLEA AETHERIA SINE TERPENEO

Oils of Lemon, Orange, Angelica, Aniseed, Bergamot, Cassia, Caraway, Cloves, Peppermint, Juniper, Curaçao, &c.

TERPENELESS AND CONCENTRATED

Of extraordinary strength and solubility, remarkably mild and pleasant taste, and fine bouquet.

SOLE AGENT FOR THE UNITED KINGDOM,

WILLIAM POPPELREUTER, MANCHESTER

HERBERT FIRTH, 59 Mark Lane, LONDON

ESSENTIAL OILS, Pomades, Perfumes in Bulk, Floral Waters, Olive Oil.

OTTO OF ROSE. ORRIS ROOT.

Soap and Confectioners' Colours.

Musk, Civet, Ambergris, Tonquin Beans, Vanillaes

Lemon, Orange, Bergamotte.

WHOLESALE AND EXPORT ONLY.

PRICE LIST AND QUOTATIONS ON APPLICATION.



TOWER TEA

OBTAINED THE

HIGHEST AWARD

FOR TEA AT THE

PARIS EXHIBITION.



PRIZE MEDAL, PARIS, 1889.

To avoid imposition see that the trade marks (a Tower, with the word "Strength" across it, and "Tower Tea") are on every package, without which none is genuine.

WHERE VACANCIES EXIST AGENTS ARE APPOINTED BY



PRIZE MEDAL, PARIS, 1889.

THE GREAT TOWER STREET TEA CO., LIMITED
5 JEWRY STREET. LONDON. E.C.



TRADE MARK.

KANGRA VALLEY INDIAN TEA GROWERS' ASSOCIATION.

French & Langdale, 14 St. Dunstan's Hill, London, E.C.

Guaranteed to be Absolutely Pure, as supplied to Europeans in India.

Packed in 1-lb., ½-lb., and ¼-lb. Metallic Air-tight Packets.

No. 1, Orange Pekoe, at 3/10 per lb. No. 2, Pekoe, at 2/10 per lb. No. 3, Pekoe Souchong, at 2/4 per lb. No. 4, Souchong, at 1/10 per lb.

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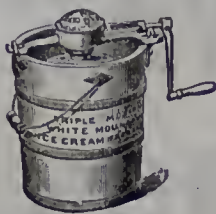
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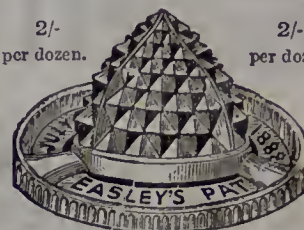


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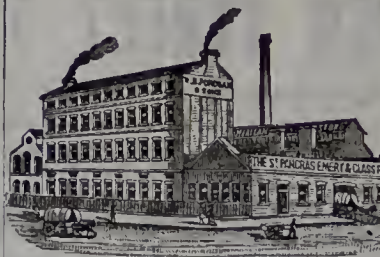


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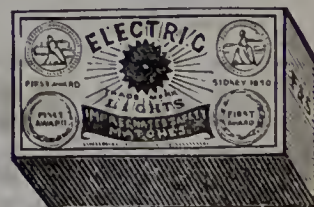
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Bush, W., and Co.
Dinn, W., and Co.
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Kerfoot, T. (Olfactory)
Quelch, H. C.
Southwell, C., and Co. (Olfactory)

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Baile, R., and Co.
Burroughs, Wellecome and Co. (Kessler's)
Hearon, Squire and Francis
Oppenheimer Bros. and Co.
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Wyley and Co.

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Dr. Paul's

PREPARATION

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Hickinson, J.
Marx, M., and E.

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Day and Sons (Veterinary)

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Shirley, Proprietor
Cooking and Co.
Evans Sons and Co.
Hockin, Wilson and Co.
Seabury and Johnson
Thompson, Walters, Hole and Co. (Lim.)
Tyrer, F.

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May and Baker (Limited)

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Harvey, J., and W., and Co.
Jones and Co.
Phillips, G., and Co.
Smith, S., and Co.

METHYLENE

Robbins, J., and Co.

MICROSCOPES

Darton, F., and Co.
Perken, Son and Rayment

MILL

Neale, H. (Condensed)

MIXING

Gardner, W.
Werner and Pfeiderer

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Gothurst and Hardine
Hugh Highgate and Co.
Kox, W., and Sons

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Chesebrough (Vaseline)
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Darton, F., and Co.
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Fuerst Bros.
Moryoseph, A.
Treatt, E. C.

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Chassaling and Co.
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Crouch, F. B.
Edwards and Son
Evans, Leecher and Webb
Fennings (Powders)
Globe Chemical Co.
Goodall, Backhouse and Co.
Guy's Tonic
Holloway (Pills and Oint.)
Lalor (Painodyne &c.)
Linsell (Clarke's Mix.)
May, Roberts and Co.
Newbury and Sons
Powell, T. (Limited)
Radam's Microbe Killer Co. (Lim.)
Roberts and Co. (Foreign)
Seagull (Limited)
Sutton, W., and Co.
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Wilcox and Co.
Willford and Co.
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Dose 1 to 4.

Per 1,000,
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Vase with painted
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21/-.

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The Great Floral Air Purifier
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3d. Size, in Boxes containing	3 dozen	6s. 0d. per box	} Net
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BUNTER'S

PREPARATIONS FOR THE TEETH

Are the PUREST, SAFEST, and BEST that can be used, containing nothing of a deleterious nature. They are strongly recommended by Drs. E. Smith, M.R.C.S., Prof. W. Wilson, M.D., Gordon Stables, M.D., B.N., Geo. H. Jones, D.D.S., F.R.S.L., F.E.M.S., & Co., Andrew Wilson, M.D., F.R.S.E., &c., &c., J. Hounsell, F.R.C.S., and many others.

BUNTER'S NERVINE FOR TOOTHACHE,

gives permanent relief by Painless constriction of the Nerve in Decayed Teeth, forms a Stopping, arrests Decay, saves Extraction, Sleepless Nights prevented, Neuralgic Headaches and all Nerve Pains relieved. As a NERVE TONIC it gives strength to the nervous system, invigorates the entire frame, affording relief and effecting a cure in many complaints over which the nerves exert control. Invented by G. B. BUNTER, Surgeon Dentist, Maidstone. Price 1s. 1½d. and 2s. 9d.

PURILINE TOOTH WASH

for the TEETH, GUMS, and BREATH. A pure, perfect, and refreshing Fluid Dentifrice. A few drops in water used daily will thoroughly Cleanse, Beautify, and Preserve the Teeth, polish the Enamel, prevent Tartar, destroy all living "Animalculæ." It is Absolutely Pure and Harmless to the youngest child or most delicate constitution. Used as a Tooth Wash after each meal will keep the mouth in a delicious condition of comfort, health, purity, and sweetness, for ever. 1s. and 2s. 6d.

BUNTER'S DENTINE,

a Permanent Stopping for Decayed Teeth. One can easily prepare and place it in the cavity of the Tooth in a soft state, and in a short time it becomes a perfectly hard and white Enamel, forming, as it were, a part of the original substance of the Tooth. Price 1s. 6d.

PURILINE TOOTH POLISH,

a pure and perfect article for Cleansing the Teeth, Hardening the Gums, and Perfuming the Breath. Will Purify and Beautify the Teeth with a Pearly Whiteness, polish the Enamel, prevent Tartar, and destroy all living Germs (Animal or Vegetable), which are the most powerful source of decay to all Teeth. It is not a Powder or Soft Paste that will scatter over clothing and soil the toilet: it is a Dental Paste of stiff consistency, non-gritty, and Absolutely Pure and Harmless to use. It is neatly put up, forming a slightly Toilet Article, or may be carried in the pocket in any climate of the world, without injury or losing its virtues. Price 1s.

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OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA.

Opposite the Julichs Place, COLOGNE,

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

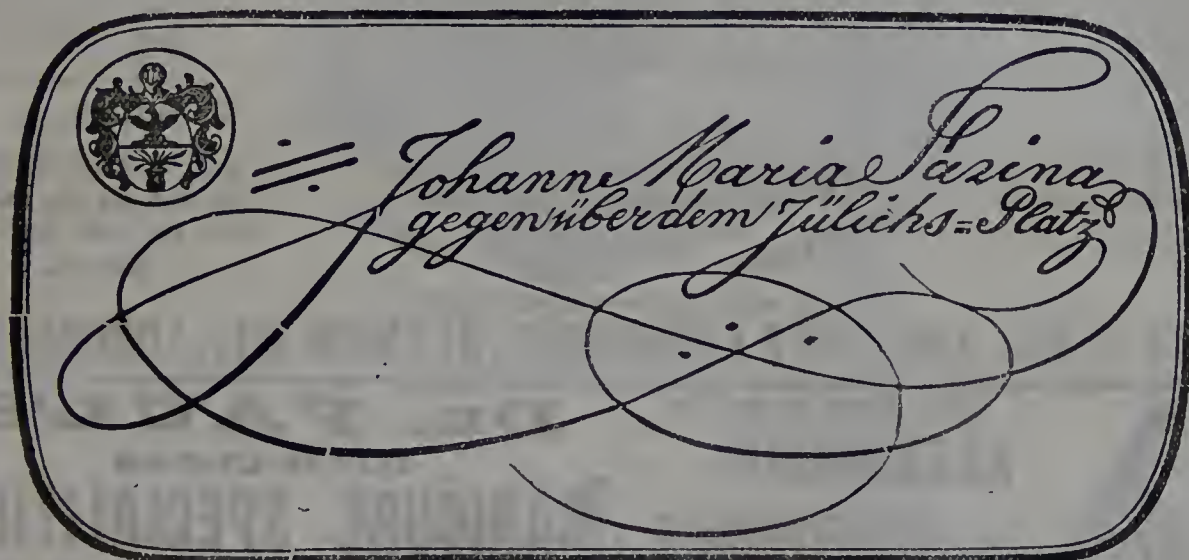
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; Albert II., King of Saxony;



Their Majesties, William II., German Emperor and King of Prussia; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 13s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCracken,
No. 38 Queen Street, Cannon Street, London, E.O.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	—	—	—	—	—	—	12 bottles	} to one dozen.
" 2. Short White Bottles	—	—	—	—	—	—	12 "	
" 3. Double ditto	—	—	—	—	—	—	6 "	
" 4. Wickered Bottles (small)	—	—	—	—	—	—	8 "	
" 5. ditto (medium)	—	—	—	—	—	—	4 "	
" 6. ditto (large)	—	—	—	—	—	—	2 "	

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COLOGNE: January, 1891.

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Owing to its HIGH MELTING POINT it is specially suitable

"A A" BRAND.

Highly refined and prepared for Toilet purposes. Invaluable for burns, cuts, wounds, &c. In elegantly decorated tins, 2, 4, 8, and 16 oz., and larger sizes.

"A" BRAND.

Less highly refined than "A A." Used as a base for Pomades, Ointments, Harness Compositions, &c.

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A useful brand where a cheaper quality than "A" is required.



FOR EXPORT, and is ready to use for Ointments.

"C" VETERINARY BRAND.

For the treatment of Wounds, Sores, Sprains, and all Skin Affections of Live Stock.

NOTE.—B and C brands are also largely used as lubricants, for the preservation from rust of bright metal surfaces, and for keeping harness, &c., in good condition.

SIZES—

1, 5, and 10 lb. tins.
25 and 50 lb. pails.
200 lb. and 350 lb. barrels.

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DR. ZIEMER'S ALEXANDRA- DENTIFRICE.

Matchless for the Teeth, Gums, and Breath!

Guaranteed Non-injurious to the Enamel.

Of all
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Prices:

1/3 size 9/-
2/- .. 15/-
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DR. PAUL'S HIGH-CLASS MANICURE SPECIALITIES,

Certified as innocuous by eminent English and American Chemists.

	Retail	Wholesale per doz.
CERAMINE. For tinting Finger Tips, Face and Lips.....	2/6	18/-
POUDRE LUSTRALE. Gives a brilliant shell-like transparency to the Nails	2/6	18/-
CRÈME CAMÉLIA. Restores Rough and Chapped Skins to their original softness	2/6	18/-
NAIL OLEATE. Preserves and gives a brilliant polish to the Nails, and prevents Hangnails, &c.	1/6	10/6
CLEANSING FLUID. Instantly removes all stains from the surface and underneath the Nails	2/6	18/-
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EMERY BOARDS. For bevelling the rough edges of the Nails after use of the file	1/-	7/-

ORANGE WOOD STICKS.

A valuable novelty introduced in Dr. Paul's system of Manicure to apply the "Cleansing Fluid" under the free margin of Nails, and thus avoid the danger of scratching with steel instruments, 7/- per doz. bundles.

CAUTION!—Dr. Paul's Specialties can be obtained at all first-class Perfumers' and Chemists', but many imitations are offered at inferior Stores

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THE PERFUMERY DEPARTMENT.

THE brightest and most frequented part of a store is generally given over to the Perfumery case, for nothing lends itself more readily to tasteful effects in grouping and arrangement than dainty scent bottles, quaint and graceful in design and execution. A fine perfume is a poem. It brightens the fancy, and brings half-forgotten scenes into new life. Of course skill is necessary in selecting an attractive perfume stock. Consumers are becoming accustomed to the highest degree of excellence in all branches, for competition has incited manufacturers to the most strenuous efforts towards perfection. Quality then is the most important consideration. Keep only the best in stock. It pays. In choosing an assortment of odors, the prevailing fondness for flowers should be taken into consideration. The magnificent Flower Shows, so largely attended, point conclusively to the fact that general taste inclines in this direction. Next to the reality comes the exquisite shadow, the flower-fragrance, which the perfumer uses all his art to catch and retain. Flower odors first, then White Rose, Violet, White Lilac, Carnation Pink, Heliotrope, Ylang Ylang, Blue Bells, and Trailing Arbutus, all are good, and true to their names. Then come the flower-combinations. Their very names bring pleasant recollection, of sunlit gardens, rain-washed hill-sides, and the soft breath of spring. Who does not know Jockey Club, New-mown Hay, Ess. Bouquet and Millefleurs?



Facsimile of the 1-oz. size.

We shall be glad to give our prompt attention to your Orders. Catalogue and New Supplement sent upon application.

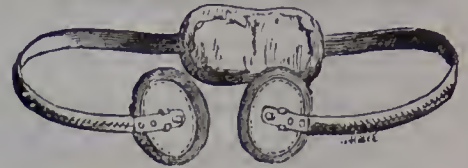
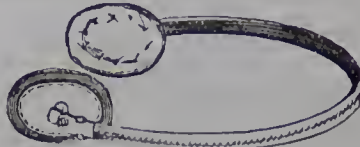
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THE BEST FOR SHAPE AND QUALITY. FIRST PRIZE, 1879.



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GREAT FACILITIES FOR MANUFACTURE AND QUICK DESPATCH OF SPECIAL TRUSSES.

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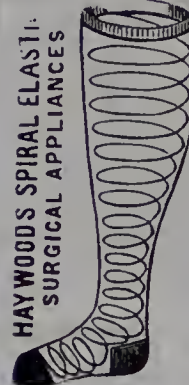
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TRUSSES.

Common, Salmon & Ody's, Cole's, Moc-Main, Scrotal, and all other most approved principles made to order.



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PATENT 4,639. (Stamites.)



MAGNETIC BELTS AND APPLIANCES.

Elastic Surgical Stockings, Knee Caps, &c.
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Patent Pile Surgical Elastic Stockings.
Elastic Supports for Lawn Tennis, Cricket, Lacrosse, and other Athletic Sports.
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Trusses of every description.

Poro-plastic Jackets.

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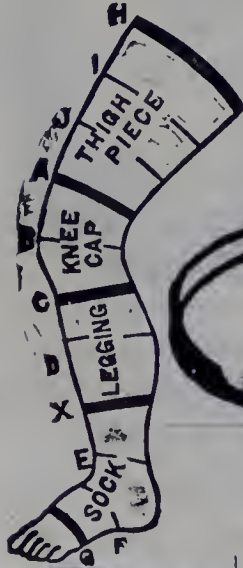
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Hot Water Bottles and Covers, Respirators, Inhalers, Bronchitis Kettles, Throat Sprays, Waterproof Coats, Cloaks and Driving Aprons, Footballs, Shin Guards, and Athletic Appliances, Druggists' Sundries, Invalid and Nursery Appliances, &c.

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Patent Pile, Protected, 14,818. The Pile lying over the Indiarubber Coris, protecting them and forming a smooth soft surface to the limb.

SYR. HYPOPHOS. CO., FELLOWS

CONTAINS THE ESSENTIAL ELEMENTS of the Animal Organisation—Potash and Lime;

THE OXIDISING AGENTS—Iron and Manganese;

THE TONICS—Quinine and Strychnine;

AND THE VITALISING CONSTITUENT—Phosphorus: the whole combined in the form of a Syrup, with a SLIGHTLY ALKALINE REACTION.

IT DIFFERS IN ITS EFFECTS FROM ALL ANALOGOUS PREPARATIONS, and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

IT HAS GAINED A WIDE REPUTATION, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

ITS CURATIVE POWER is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited.

ITS ACTION IS PROMPT; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact also that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, **FINDS THAT NO TWO OF THEM ARE IDENTICAL**, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **IN THE PROPERTY OF RETAINING THE STRYCHNINE IN SOLUTION**, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. FELLOWS."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles (4/- or 7/-): the distinguishing marks which the bottles (and the wrappers surrounding them) bear can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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CAPSULED "McK. & R." PILLS.

McKesson & Robbins : Originated 1870 : New York.

WHY SHOULD THE "McK. & R." PILLS BE PRESCRIBED?

1. Because they are prepared from materials of the highest quality only.
2. Because they are made according to the B.P. or other Standard Authorities, and therefore all the combinations are well tried and of recognised value.
3. Because they are taken pleasantly—being tasteless—and readily, being ovoid in form.
4. Because they are not subjected at any stage of preparation to the injurious action of heat.
5. Because the coating of *pure transparent gelatine* preserves the contents from oxidation.
6. Because they are always soluble, and the contents soft and quickly disintegrated.

LIST OF PRINCIPAL CAPSULED PILLS.

Aloes, all the B.P. combinations 5 gr.		Laxative, Vegetable—	
Aloes, Dilute (Dr. Hall Dinner Pill)..... 4 gr.		Res. Podoph.	
Aloes Barb.		Ext. Hyoscy.	
Saponis Pulv.		Ext. Tarax, aa 1-4 gr.	
Aloes and Nux Vomica—		Ext. Coloc. Co. 1 gr.	
Aloes Soc. 1½ gr.		Jalape	
Aloin		Res. Leptand. aa 1-2 gr.	
Aloin, various combinations.		Ol. Menth. Pip.	
Anti-Dyspepsia (Fothergill)—		Mercury, Binioidide 1-16 gr.	
Strychnine ½ gr.		Mercury, Proto-iodide 1-20, 1-16, 1-8, 1-4 gr.	
Pulv. Piper Nig. 1½ gr.		N.B.—Made from the absolutely pure <i>yellow</i> impalpable powder, free from mercury and from biniodide.	
Arsenious Acid..... 1-20, 1-50 gr.		So-called "green" proto-iodide contains uncombined mercury.	
Asafoetida, U.S. and B.P. 5 gr.		Mercury with Chalk..... 1 gr.	
Atropine..... 1-100, 1-300 gr.		Morphine Muriate 1-8, 1-4 gr.	
Blue Pill, B.P. 1, 2, 3, 5 gr.		Nitro-Glycerine..... 1-200, 1-100, 1-50 gr.	
Blue Pill, with Colocynth and Hyoscyam. 5 gr.		Opium 1 gr.	
Calcium Sulphide 1-10, 1-4, 1-2, 1 gr.		Opium and Camphor..... 1 gr.	
Calomel, Colocyn., and Hyosc. 5 gr.		Opil Pulv. 1 gr.	
Calomel Co., B.P. 5 gr.		Camphor 2 gr.	
Camphor and Hyoscyam..... 2 gr.		Pepsin, Pure 1 gr.	
Campbore.		Phosphorus 1-100, 1-50, 1-30 gr.	
Cannabis Indica 1-4, 1-2 gr.		N.B.—In no kind of Pill are the advantages of the "McK. & R." method better exemplified or more in request.	
Cascara Sagrada 3 gr.		No other brand of Phosphorus Pills is equally reliable for the administration of the unoxidised medicament.	
Cathartic Comp., U.S.P.		Phosphorus and Iron—	
Ext. Jalap 1 gr.		Phosphor. Pur. 1-50 gr.	
Ext. Coloc. Co. 1-1-3 gr.		Ferr. Redact 2 gr.	
N.B.—The ready solubility of the "McK. & R." Pills is readily proved by taking a dose of these.		Phosphorus, Iron, and Quinine—	
Colocynth Comp., B.P. 4, 5 gr.		Phosphor. Pur. 1-100 gr.	
Colocynth, other combinations.		Ferri Carb. 1 gr.	
Copaiba Compound—		Quinine Sulph. 1 gr.	
Cubebe Pulv. 2 gr.		Phosphorus and Nux Vomica—	
Ferri Sulph. Exsic. .. 1-2 gr.		Phosphor. Pur. 1-50 gr.	
Tereb. Venet. 1-1-2 gr.		Ext. Nucis Vom. 1-4 gr.	
Corrosive Sublimate 1-30, 1-20, 1-10 gr.		Phosphorus and Quinine—	
Croton Oil 1-2 gr.		Phosphor. Pur. 1-50 gr.	
Diuretic—		Quinine Sulph. 1 gr.	
Ext. Buchu, Potass. Nitrat. 1 gr.		Phosphorus and Valerianate of Zinc—	
Sclla Pulv. 1-2 gr.		Phosphor. Pur. 1-50 gr.	
Emmenagogue—		Zinci Valer. 1 gr.	
Ferr. Sulph. Exsic. 1-1-2 gr.		Picrotoxin 1-80 gr.	
Thus. American 1-1-2 gr.		Podophyllin 1-8, 1-4, 1-2 gr.	
Aloes Socot. 1-2 gr.		Quinine, Bisulphate 1-4, 1-2, 1, 2, 3, 4, 5 gr.	
Ergotin 3 gr.		Quinine, Sulphate 1-4, 1-2, 1, 2, 3, 4, 5 gr.	
N.B.—Each Pill = 30 gr. ergot or 30 ms. fl. extract. This form is more reliable and uniform in effect and more agreeable than the liquid preparations.		Quinine Co. (Anti-Malarial).	
Euonymin 2, 3 gr.		Largely prescribed in America with excellent results.	
Iodoform and Iodoform with Iron 1 gr.		Rhubarb Comp., B.P. 5 gr.	
Ipecac. 1-4, 5 gr.		Rhubarb with Blue Pill 5 gr.	
Ipecac. Co. 5 gr.		Salicylic Acid 2, 5 gr.	
Ipecac. and Squill, B.P. 5 gr.		Soap Comp., B.P. 5 gr.	
Iron Pill, B.P. Add. 3, 5 gr.		Squill Comp., B.P. 5 gr.	
Iron Arseniate 1-8 gr.		Strophanthus 1-20, 1-4 gr.	
Iron reduced by Hydrogen (Quevenne)..... 1, 4 gr.		Strychnine 1-50 gr.	
Iron and Quinine Citrate 2 gr.		Tonic Laxative (Fothergill)—	
		Quinine Sulph. 2-3 gr.	
		Ferri Redact.	
		Strychn. 1-30 gr.	
		Ext. Bellad., aa. 1-4 gr.	
		Valerianates, Iron, Quinine, and Zinc.	
		Warburg's Tincture and the same without Aloes.	
		Each Pill = 1 fl. drm. of the Tincture.	
		Zinc Phosphide 1-4, 1-2 gr.	
		Zinc Valerianate 1 gr.	

Special Combinations of 3,000 or more Pills made and Capsuled to order for Hospitals, &c., at Special Quotations.

London Agency:—Messrs. S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, E.C.

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MESSRS. GRIMWADE, RIDLEY & CO., 7 Union Court, Old Broad Street, London, E.C.

SOLUBLE "TABLOIDS" OF COMPRESSED DRUGS.

LONDON]

FEBRUARY 28th.

[1891.

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1. Their use effects a very great economy of time in dispensing.
2. They are more easily taken than powders or pills.
3. They are not bulky like solutions or gargles.
4. The disagreeable flavour of many drugs in solution may be avoided by giving them in "Tabloids."

5. The necessary quantity of medicines prescribed by the physician can be readily taken in this form, and it is much more likely to be taken than if the medicines are disagreeable or inconvenient to use or take. Chemists can really afford to dispense medicines in the form of "Tabloids" at less prices than if they have to make up prescriptions of powders or pills, or solutions.

"TABLOIDS" OF SULPHONAL AND OTHER SPARINGLY SOLUBLE DRUGS.

"We have examined 'Tabloids' of Compressed Sulphonal, Phenacetin, &c., sent by Messrs. Burroughs, Wellcome & Co., Snow Hill Buildings, E.C., and find that when they are put into water they readily break and fall to powder, which can be easily suspended by shaking. Placed upon the tongue, they immediately begin to soften and DISINTEGRATE. This specially compressed form possesses, therefore, the great advantage of permitting the subsequent absorption of insoluble drugs in consequence of the fine state of division into which they are reduced in the stomach."—*British Medical Journal*.



Sulphonal "Tabloids" (5 gr.) supplied to the Trade in bottles of 25 and 100 at 8/6 and 24/ per doz. Phenacetin "Tabloids" (5 gr.) at 20/ and 56/ per doz.

APOMORPHINE "TABLOIDS."

Dr. Murrell (*Lancet*, March 8, 1890) says:—"I often prescribe the fiftieth of a grain 'Tabloid' of Apomorphine as a cough-lozengc. In this dose it never excites vomiting and very rarely nausea. The great bar to its general acceptance is a deep-rooted impression that Apomorphine is an emetic and nothing else, but undoubtedly its chief use is as an expectorant." He highly recommends the employment of Apomorphine in chronic bronchitis, bronchial catarrh, and pulmonary diseases generally.

Apomorphine "Tabloids" (1/50 gr.) supplied to the trade in vinaigrette oval bottles of 50, at 8/6 per doz.

VOICE "TABLOIDS."

Composed of COCAINE, Chlorate of Potash, and Borax.



Impart a clear and silvery tone to the voice. Easily retained in the mouth while singing or speaking. Now used by the leading singers and public speakers throughout the world.

DIRECTIONS.—A single "Tabloid" may be slowly dissolved in the mouth to remove huskiness or hoarseness.

Supplied to the profession in beautifully graven white metal boxes, with blue silk labels, at 8/ and 16/ per doz. Retail prices, 1/ and 2/ per box.

"TABLOIDS" prepared by BURROUGHS, WELLCOME & CO.

Aconite Tinct., 1 min.	Lithia Carbonate, 2 gr.
Aloin, 1/10 gr.	Manganese Dioxide, 2 gr.
Ammon. Bromide, 5 and 10 gr.	Morphine Sulph., 1/20 and 1/8 gr.
Ammon. Chloride, 3, 5 and 10 gr.	Nitroglycerine (see Trinitrine).
Ammon. Chloride with Borax.	Nux Vomica Tinct., 1 min.
Antacid.	Opium Tinct. (Laudanum), 2 min.
Anti-Con-	Papain (Dr. Fhikler & Co.), 2 gr.
stipation	Pepsin, Pure (Fairchild), 5 gr.
Aloin, 1-5 gr., Belladonna Ex.,	Pepsin Saccharate, 5 gr.
1-8 gr., Strych., 1-60 gr.,	Peptonic (Pepsin, Pancreatin, Lacto-
Ipecac., 1-10 gr.	phosphate Lime, equal quantities)
Antifebrin, 2 gr.	Phenacetin, 5 gr.
Antimony Tartrate, 1/50 gr.	Philocarpin Mur., 1/20 gr.
Antipyrin, 5 gr.	Podophyllin Resin, 1/4 gr.
Apomorphine Mur., 1/50 gr.	Potass Bicarb., 5 gr.
Arsenious Acid, 1/100 and 1/50 gr.	Potass Bromide, 5 and 10 gr.
Atropin Sulph., 1/100 gr.	Potass Chlorate, 5 gr.
Belladonna Tinct., 1 min.	Potass Chlorate with Borax.
Bismuth Sub-nit., 5 and 10 gr.	Potass Iodide, 5 gr.
Blue Pill, 3 gr.	Potass Nit. (Sal Prunella), 5 gr.
Borax, 5 gr.	Potass Permanganate, 1 and 2 gr.
Caffein Citrate, 2 gr.	Quinine, 1/10, 1/2, 1, 2, 3, and 5 gr.
Calcium Sulphide, 1/10 gr.	Rhubarb, 3 gr.
Calomel, 1/10 and 1 gr.	Rhubarb Comp. (Pl.), 3 gr.
Capicum Tinct., 1 min.	Rhubarb Comp. Pulv. (Gregory Pow-
Cascara Sagrada Dry Ext., 2 gr.	der), 5 gr.
Cascara Comp.	Rhubarb and Soda, 5 gr.
Cascara Sagrada Ext. (dry), 1 gr.	Saccharin, 1/2 gr.
Euonymin, 1/2 gr.	Salicin, 5 gr.
N. x Vomica Ext. 1/16 gr.	Salol, 5 gr.
Hyoscyam. (dry) Ext., 1-3 gr.	Santonin, 1/2 gr.
Oathartic Comp., U.S.P.	Soda Bicarbonate, 5 gr. [(& Mint)]
Charcoal, 5 gr.	Soda-Mint (Soda Bicarb., Ammon. Carb.,
Chloralamid, 5 gr.	Soda Salicylate, 3 and 5 gr.
Chloral Hydrate, 5 and 10 gr.	Strophanthus Tinct., 2 min.
Quinine, Potash, and Borax (Voice)	Sulphonol, 5 gr.
Citric Aromat. cum Opio Pulv., 5 gr.	Sulphur Comp. (Dr. Garrod's Formula)
Digitalis Tinct., 1 min.	Tannin, 24 gr.
Digitalin, 1/100 gr.	Test Tabloids (Fehling's).
D. ve. Powder, 1/4 and 5 gr.	Thirst.
Euonymin Resin, 1/8 gr.	
Ferrum Rodactum, 2 gr.	Tonic Comp. { Iron Phosphoph., 2 gr.
Hydrarg. cum Greta (Grey Powder),	Quinine Sulph., 1 gr.
Hydrarg. Iod. Rub., 1/20 gr.	Strychnine Sulph.,
Hydrarg. Iod. Vir., 1/8 gr.	1/100 gr.
Hydrarg. Perchlor., 1/100 gr.	Trinitrine (Nitroglycerine), 1/100 and
Hydrarg. Subchlor. (Calomel), 1/10	1/50 gr.
and 1 gr.	Trinitrine and Amyl Nitrite.
Hydrastis Comp.	Trinitrine, 1/100 gr.
Hydrastis Mur., 1-4 gr.	Nitrite of Amyl, 1/4 gr.
Ergotine, 1-2 gr.	Cassium,
Gambalin Tannic, 1-2 gr.	Menthol, an 1/50 gr.
Hydrocaphthol, 3 gr.	
Ipecac. and Opium (Dover Powder)	Urethane, 5 gr.
Ipecac. Powder, 1/10 and 5 gr.	Valer. (Potash, Borax, and Cocaine).
Iron and Quinine Cit., 3 gr.	Warburg Tincture, 30 min. in each.
Laxative Vegetable.	Zinc Sulphate, 1 gr.
Res. Podoph., Ext. Hyoscy., Ext.	Zinc Sulpho-carb., 2 gr.
Tarax., an 1-4 gr.	Zymine (Pancreatin).
Ext. Col. o Pulv., 1 gr.	Zymine Comp. Tabloids (Zymine, 3 gr.,
Jalapam Pulv., Res. Leptand., aa	Bismuth Subnitrate, 3 gr., Powd.
1-2 gr., Ol. Mer th. Pp.	Ipecac., 1-10 gr.)

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See "CHEMIST AND DRUGGIST," December 15th, 1874.



ESTABLISHED 1859

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SALVAGE.—The Pharmaceutical Society have succeeded in letting their house, No. 15 Bloomsbury Square. We believe it has been taken by a firm of solicitors.

CHEMISTS' ASSISTANTS' ASSOCIATION.—The annual dinner will be held at the Holborn Restaurant on Thursday next, March 5, at 8 o'clock, T. Tyrer, Esq., F.I.C., F.C.S., in the chair. Tickets may be obtained from either of the stewards, or from the secretary, 103 Great Russell Street.

GALEN MASONIC CLUB.—We understand that the committee of Freemasons who have been acting with a view to the formation of a masonic club of pharmacists have got the proper authority from a high quarter, and meetings will be held on an early day, the Freemason's Tavern being the head-quarters.

SOCIETY OF CHEMICAL INDUSTRY.—A meeting of the London section will be held in the Chemical Society's rooms on Monday, March 2, at 8 p.m., when Mr. V. H. Veley will read a paper on "The Chemical Changes between Nitric Acid and Metals," and Mr. J. A. Wanklyn one on "Further Researches on the Butter of the Cow."

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

MANCHESTER.

ACCIDENTAL DEATH OF A CHEMIST.—On February 20 Mr. Sidney Smelt, deputy coroner for the city, held an inquest relative to the death of Thomas Hewitt, 73 years old, who resided in Lorn Street, Hulme. On January 5, shortly after arising, the deceased was going downstairs when he made a false step and fell to the bottom. A next-door neighbour, hearing the fall, and aware that Mrs. Hewitt was ill, ran into the house, and found him lying at the bottom of the stairs, unconscious but unable to move. Dr. Matthews was sent for, and he attended the deceased regularly until his death, which took place on February 17. The jury returned a verdict of accidental death.

A DOCTOR'S DISPENSING.—A matter which was reported in THE CHEMIST AND DRUGGIST at the time came up at the Manchester Assizes on Tuesday, before Mr. Justice Day, who gave judgment for 75% against Dr. Clegg and 25% against Dr. Myles, two medical gentlemen in practice at Bacup, for negligence which resulted in the death of a young woman named Brierley, employed as a barmaid in that town. Dr. Myles, who is Dr. Clegg's assistant, made up some medicine for Miss Brierley, and went to the hotel and handed to her, as he thought, the bottle containing this medicine, but when some distance from the hotel he discovered that he had given her in mistake a bottle containing prussic acid, which he had in the same pocket. A boy was sent back to the hotel to get back the prussic acid and to leave the other bottle, but before he could get there Miss Brierley had taken a dose of the poison and was in great agony. She afterwards died. Under these circumstances the girl's parents brought the action against Dr. Myles and his employer, Dr. Clegg, to recover damages for their negligence. In the course of the hearing of the case the statement made at the inquest was repeated, that Dr. Clegg and his assistants did their own dispensing, and that it was not their practice to enter in any book the medicines they made up. The prussic acid bottle, it appeared, had not a poison label on it, and the reason given for this was that Dr. Myles only intended to put two or three drops of it in the medicine of one of his patients, and then return it to the surgery.

NEWCASTLE-ON-TYNE.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.
—The ninth meeting of the second session was held on February 18—Mr. F. Park, president, in the chair. Mr. Chas. Ranken, F.C.S., pharmaceutical chemist, of Sunderland, read a few "Botanical Notes," and illustrated his lecture by photograph lantern-slides, shown on a screen by the oxy-hydrogen lantern. The notes dealt with the sting of the common nettle, reproductive organs of ferns, butterworts, the sundew and other insectivorous plants, and the process of fertilisation, explained in connection with digitalis, arum, primula, &c. Mr. T. M. Clague, in supporting a vote of thanks, called attention to the fact that the material for the lecture had all been collected locally. The lantern-scenes, he remarked, carried him back to the time when the author of the paper and himself had made their botanical excursions to Epping Forest in their student days. At the next meeting, on March 4, Mr. Clague will read a paper on "The Chemistry of Beer-making."

PLYMOUTH.

CHEMISTS, TAKE WARNING.—Plymouth has this week been favoured by a visitor, who has called upon many of the chemists with a view to obtaining financial assistance, representing to one that he is a qualified assistant, to another that he is unable to obtain a situation as he is unqualified, and to others statements of various kinds. So far, it is believed, his mission has been unsuccessful. He is supposed to have moved on in a westerly direction.

IRELAND.

ETHER-DRINKING IN IRELAND.—In the House of Commons on Monday Dr. Tanner, on behalf of Mr. Matthew Kenny, asked the Chief Secretary to the Lord Lieutenant of Ireland if he could confirm the statement published in newspapers that ether had been scheduled as a poison, and could in future be sold in Ireland only by chemists. Mr. Balfour: It was stated by my right hon. friend the Chancellor of the Exchequer, in reply to a question addressed to him on December 1, that ether has been so scheduled, and can only now be sold by duly qualified chemists and druggists as a poison.—In the House of Commons on Thursday, Mr. Bryce, for Sir Lyon Playfair, asked the Chancellor of the Exchequer whether he would lay on the table or supply to the Select Committee on British and Foreign Spirits the report made to the Government on the use of ether as an intoxicant in Ireland. Mr. Goschen replied that there would be no objection to his doing so.

SELLING CORROSIVE FLUIDS.—On Wednesday of last week, at the Belfast Recorder's Court, an action was brought by Francis Kennedy, 4 Clarence Place, against Samuel Clotworthy, trading as Clotworthy & Co., druggists, Bridge Street, to recover 3*l.* for that plaintiff, having purchased from defendant a certain chemical liquid or substance of a corrosive nature, the said defendant, by himself or his assistant, so carelessly, negligently, and improperly secured the bottle or package containing the same that the said liquid escaped and burnt the clothes and person of the defendant, whereby he was put to expense and suffered pain and inconvenience to the plaintiff's loss and damage. Evidence having been given, his honour gave a decree for 1*l.* 10*s.*, on the ground that the plaintiff should have been warned of the dangerous character of the liquid he was buying, and given his option of having it taken in a glass-stoppered bottle.

SCOTLAND.

DUNDEE.

AT THE KIRRIEMUIR POISONING TRIAL, last week, several local chemists were witnesses. Medical men, doctors, and analysts get three guineas a day, professional men one guinea a day, and ordinary witnesses 7*s.* 6*d.* a day, railway fares in each case being also paid. The only recognised professional witnesses on this occasion were the druggists and druggists' assistants. Bankers, lawyers, and business-

men are grumbling at being included amongst the three-half-crown lot while druggists' assistants, whose trip to Edinburgh was a holiday, received a guinea per day.

EDINBURGH.

THE RECENT BALL.—Mr. Duncan McGlashan complains of our report a fortnight since, implying that the ball was not a financial success, notwithstanding the usual "assessments" levied on patrons and outsiders, and that there was too much begging from persons who had no connection with the ball. The ball, he says, has been a financial success: the balance would be bigger if everyone would pay his liability. No outsiders were asked to take any part in the ball, every one had some connection with the trade. The committee only sent out the usual invitations, which were accepted or declined, as the parties wished.

GLASGOW.

FANNING THE EMBERS.—A vigorous effort is at present being made to re-organise the Masters' Association. Mr. W. L. Currie, who has originated the movement, is making an active canvass of the local trade, and has already achieved a fair measure of success.

WHAT WILL HIS LANDLORD SAY?—An itinerant herbalist, who has his headquarters on the south side of the city, exhibits a large hand-printed poster outside the place informing his clientele that he is "removing to more suitable premises, owing to the unsanitary condition of those presently occupied. Premises on view on Tuesdays and Wednesdays, from 1 till 2"; while on the bottom of the window-pane there is scratched the laconic but suggestive legend, "Damp bad premises."

ASSISTANTS' ASSOCIATION.—At the meeting on February 18, Mr. David Watson read a short paper on "Counter Prescribing." While admitting that to a certain extent the practice is inevitable, the essayist strongly condemned the excess to which it is carried, especially in England, and quoted from various coroners' inquest reports the fatal results of indiscriminate counter-prescribing, and in other cases the undeserved discredit brought upon the trade in general, because of the untoward issue of some case treated by a chemist, concerning which nothing would have been heard if it had been in a doctor's hands. In conclusion, Mr. Watson counselled the utmost circumspection even in the few simple cases in which counter-prescribing was warrantable at all. A discussion followed from which it appeared that most of the members present assented to Mr. Watson's conclusions. Thereafter some conversation took place as to a proposal to hold some form of entertainment before the end of the session, but owing to various difficulties it was agreed not to proceed further in the matter.

General News.

FIRE.—On Tuesday a fire broke out in the petroleum-store of Mr. M. Baker, chemist, Abbey Street, Nuneaton, and a large block of buildings narrowly escaped destruction. The burning liquid from the barrels ran in streams across the yard, and but for the timely assistance rendered by the fire-brigade, the damage would have been serious indeed. As it was, several barrels of petroleum were destroyed, as well as some shedding, and a number of rabbits were roasted alive.

CHEMICAL SOCIETY'S OFFICE-BEARERS.—The following alterations are proposed for the annual meeting next month:—As president, Professor Crum Brown; vice, Dr. Russell; vice-presidents, Mr. J. Pattinson and Professor Tilden; vice Professors Crum Brown and Mallet; foreign secretary, Professor Meldola; vice Professor Japp; members of Council, Dr. Atkinson, Mr. Boverton Redwood, Professor Perkin, and Dr. J. Voelcker; vice Mr. Cross, Professor Dunstan, Professor Meldola, and Dr. Plimpton.

TOO MUCH CHLORAL.—An inquest was held at Eastbourne last week on the body of John Lister Armitage, aged 26, a medical student and dispenser to Dr. Habbgood and Dr. McQueen. Deceased had been suffering from headache, and

had been in the habit of taking morphia. The day before his death he told Dr. McQueen that he had taken a grain and a half. Deceased was found dead in his bed, and two bottles, which had contained bromide of potassium and chloral, were found beside him. The jury returned a verdict of death from misadventure.

CARBOLIC POISONING.—An inquest was held on February 24, at Brockley, on the body of Leonard Hyde Astley, aged a year and nine months, son of G. G. Astley, of 178 Lewisham High Road. About four months ago, by medical advice, Mrs. Astley sent for a bottle of pure carbolic acid to be used as a lotion. It was sold in a common bottle, there was no label "Poison" upon it, and no one in the house appeared to have known that it was a deadly poison. It was administered to the child by mistake, and he died shortly afterwards. The Coroner having remarked strongly upon such a deadly poison being sold without any intimation of its nature, the jury returned a verdict "That the child died from shock and inflammation of the air passages through taking carbolic acid by misadventure."

DAMAGE DONE BY CHEMICAL FUMES.—At a meeting of the Runcorn Rural Sanitary Authority the question of complaints made by farmers by reason of the chemical vapours from the Widnes Chemical works was discussed. Mr. Parr, of Hatton, said the fumes were most injurious to cattle, destroyed timber and hedges, and pasturage. If they laid down clover, instead of it becoming better in the course of a year or two, the land became nothing but a wild moor. He suggested that a letter should be written to the inspector under the Alkali Acts to ask him to see that the manufacturers were more careful about turning this vapour out. There was a lot turned out on a Sunday night. Mr. Brandreth said the nuisance was caused by the Chance process, and great complaints had been made in Widnes district, and the secretary of the Chemical Union had promised that everything should be done to prevent fumes escaping. The subject was deferred for a fortnight.

A CLEAR CASE.—At the County Court, Market Drayton, George Lavis and son, Market Drayton, sned John Vaughan, chemist and grocer, Audlem, for 29*l.* 0*s.* 9*d.*, goods sold and delivered, and 2*l.* 18*s.* for interest on that amount. The goods were supplied during March, April, and May, 1889, to defendant's sister-in-law, Mrs. Roan, who formerly managed a shop at Swanbuck for the defendant. The accounts were sent to the defendant, by arrangement with the plaintiffs, every quarter. Mrs. Roan was to receive 5 per cent. interest on the profits, and she rendered an account of the shop-takings weekly to the defendant. All the goods claimed for were delivered, and the defendant had the money from the sale of them. She did not now carry on the business. The defendant's story was that he had revoked his instructions by letter to the plaintiffs to supply Mrs. Roan with goods. His Honour said the plaintiffs had made out a very clear case, and gave judgment for the amount claimed, with costs.

MESSRS. IDRIS & CO. AND THEIR EMPLOYÉES.—We noted last week a scheme of profit-sharing which Messrs. Idris & Co. promised to their employés. We did not do full justice in our note to the firm's proposal. Besides the share in the profits announced, which Mr. Williams, the principal, explained would not be regarded in any way as a set-off against wages, some other minor benefits were offered. First, it had been decided to cease deducting insurance money from the wages, and to take it from the share of profit divisible at the end of the year. Secondly, the firm offer the services of their accountant to receive money for a clothing fund, slate club, or any other provident fund, got up amongst the staff, will undertake all expenses of administration, and will allow interest at the rate of 5 per cent. on all money deposited in their hands. Thirdly, if any of the staff wish to join classes for educational and technical improvement, such as the evening classes at the Board School, or classes at the Aldenham Institute, Birkbeck, or Polytechnic, the firm will advance the money to pay for the classes, and make a present of it on proof of fair attendance.

A CHEMIST'S ASSISTANT CHARGED WITH FRAUD.—Before the magistrates at Old Hill on February 18, William Howard Beddard, described as a chemist's assistant, of Prince's End, was charged with having obtained 73*l.* from

Charlotte Attwood, single woman, of Cradley Heath, with whom he was keeping company, at various dates last year. According to the statement made for the prosecution, the prosecutrix, who was about 34 years of age, had in June last 150*l.* in the bank, and this fact became known to the accused, to whom she had been introduced, and who subsequently paid his addresses to her. On July 10 last she lent him 1*l.*, and the next day he advised her to draw 10*l.* out of the bank, and he bought a watch and chain, of the value of 4*l.*, at Dudley. The defendant obtained from the prosecutrix various sums of money until the amount reached 46*l.* 4*s.* When he visited the prosecutrix he generally rode on horseback or in a dogcart, and seldom walked. The prisoner afterwards made a false representation that he had some furniture which was not paid for, and he advised her to draw another 10*l.* out of the bank. He afterwards brought her home, and subsequently obtained from her sums of 10*l.*, 9*l.*, 8*l.*, and 10*l.* On December 22 they went to Dudley, and the prisoner left the prosecutrix at Netherton, stating that he would meet her at a refreshment house at Dudley; but he did not do so, and nothing more had been seen of him until his arrest, when he said he knew nothing about it. Details of these statements were given in evidence, and the prisoner, who pleaded "Not Guilty," and reserved his defence, was committed for trial at the Quarter Sessions, bail being allowed.

LAUDANUM CORDIAL POISONING.—An inquest was held at Wolverhampton on February 18 on the body of Mary Jane Moore, aged four months, illegitimate child of Emily Moore, of Neve's Yard, Horseley Fields. John Walton, chemist, Lower Horseley Fields, said that on the previous Saturday the woman, Emily Moore, and another woman brought the deceased to him. The child was in a very emaciated condition. He gave three-pennyworth of cordial, which contained 2 minims of tincture of laudanum, 5 drops of essence of aniseed, and syrup coloured with burnt sugar. He also gave a small bottle of liniment to be rubbed on the chest. The mother did not tell him that the child was ruptured. About half the cordial had been consumed. The mother, on being called, said she had only given the deceased 2 drops of the cordial purchased from Mr. Walton. Mr. Arthur H. W. Hunt, house-surgeon at the hospital, said he had made a post-mortem examination of the body. The organs were healthy, except the brain, which was slightly congested. He could not detect any smell of laudanum or opium in the stomach, but considered that death was due to an overdose of opium or some other narcotic. Opium was a very dangerous drug to give to a child of that age. It was never prescribed in the hospital. After consultation with the jury, the coroner adjourned the inquiry to have the cordial sold by Mr. Walton analysed. The adjourned inquest was resumed on February 25. Mr. E. W. T. Jones, analytical chemist, said he had examined the syrupy fluid in the bottle, as supplied by Mr. Walton, chemist. If the bottle had in the first instance contained 1 oz. of the mixture, there would have been in the quantity missing about 4 minims or drops of tincture of opium. If the maximum dose mentioned on the label were taken, there would be less than half a minim of the tincture in it. There were about 7 minims to the ounce. The coroner said it was difficult for him to direct the jury, because whilst half the quantity was stated by the chemist to be missing from the bottle, the mother said she gave the child only 2 drops of the cordial, in which there would be an infinitesimal quantity of tincture of opium. The jury returned a verdict that deceased, being a delicate child, died from the effects of opium, innocently administered to her, and strongly recommended all chemists throughout England to cease the sale of any preparation to be administered to infants containing opium.

CARVACROL IODIDE.—F. Bayer & Co., of Elberfeld, have got a German patent for the preparation of this body. They make it by treating 15 part of carvacrol with 1.6 part of caustic soda (in solution), then adding 10.16 parts of iodine and the same of potassium iodide. A yellowish precipitate of carvacrol iodide is formed, which is washed and dried. It is difficultly soluble in alcohol, but dissolves in ether, chloroform, and olive oil. We may hear of it yet in medicine.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

KOCH'S LYMPH AND THE CHIMPANZEES.—It appears that one of the two chimpanzees at the Zoological Gardens here inoculated with Koch's lymph died forty eight hours after the operation. In order that a careful examination may be made the lungs of the unfortunate creature are to be sent to the Alfort School of Medicine.

AN INTER-MEDICAL WEDDING.—Some interest was caused in the Paris medical world last Saturday by the wedding of Miss Blanche Edwards, a popular lady M.D., and M. Alexander-Henri Pilliet, house surgeon to one of the hospitals and editor of the *Progrès Médical*. The ceremony took place at the Oratory, the headquarters of French Protestantism in this city.

THE RE-VACCINATION OF STUDENTS.—By a recent ministerial decree candidates for the degrees of health officers, doctors and chemists of the first or second class will only be allowed to enter the colleges and schools of medicine or pharmacy upon production of a medical certificate stating that they have undergone re-vaccination under the supervision of the respective school or college to which they apply for admission. The heads of these centres of learning will determine the conditions of supervision to be adopted.

A PECULIAR ACTION FOR VIOLATION OF PROFESSIONAL SECRECY is threatened against M. Vigné, surgeon, of Océan. This gentleman is the author of several novels, and his last, entitled "L'Eternelle Blessée," treats of a young woman whom an accident of her youth has incapacitated for the functions of a wife and mother, but who has married in ignorance of this fact. The intending prosecutor is stated to be a gentleman in the South of France, whose wife was professionally attended by M. Vigné. He accuses the surgeon of having broken, by the publication of this work the unwritten laws of the medical profession.

INFANT MORTALITY AND THE FEEDING-BOTTLE.—A London "society journal" recently published the rash statement that the only real benefit scientists have provided for humanity, in any age, is the introduction of the feeding-bottle. However, this may be, imperfections and improvements are constantly being suggested in connection with this useful article. At the annual meeting of the Infants' Protection Society held in the Grand Amphitheatre of the Sorbonne last Sunday, special attention was drawn by the medical inspectors of the society to the danger of using long tubes with these bottles, on account of the difficulty in keeping them clean. It is proposed to take measures to prohibit the use of long tubes.

SCHOOL OF PHARMACY FOR TOULOUSE.—A draft was distributed a few days ago, at the Chamber of Deputies, of a law authorising a credit of 221,667 f. for the establishment of a school of pharmacy and medicine at Toulouse. The project states:—"The faculty will commence its functions on March 16, 1891. It is therefore necessary to provide from that date forward for the expenses of the material and staff. The annual amount of these expenses will be 280,000 f. According to the two agreements of 1880 and 1886, and the decision of the Toulouse Municipal Council on October 16, 1890, the town undertakes the responsibility of all expenses; but the taxes levied by the State will be allowed for, and the municipality will pay the balance into the coffers of the Treasury. The credit for 1891, being calculated from March 16 to December 31 only, will be 221,667 f., as above stated, instead of 280,000 f."

A PHARMACIST'S VENGEANCE.—M. Daille, a pharmaceutical chemist, of Auxerre, was prosecuted in 1884 for defamation and abuse of three inspectors of pharmacy, with whom he had had differences. He was acquitted by the Yonne Court of Assizes on the count of defamation, but fined 2*l.* for the abuse. He did not easily forget his little adventure, and on August 5 last put up a poster outside his shop, which read somewhat as follows:—"Léon Daille. Vanquisher of French Justice and of the false witnesses, Dionys des Carrières and Monceaux, Delegates of the Prefect. Judgment of June 24, 1884." In reply to a magisterial

order to destroy this notice, M. Daille merely transferred it to the interior of his window. This led to a further summons, which resulted last Monday in his being incarcerated for one month, besides being mulcted in a fine of 4*l.*

SAVED BY A REAGENT.—An interesting case of the employment of chemical means in the interests of justice is reported by the correspondent of the *Temps* to have occurred at the last sitting of the Court of Appeal at Rennes. In September, 1890, a band of sharpers established in that town a business in chemicals under the name of A. Carrié. The method pursued was to set up bogus firms in one town after another. With envelopes and paper bearing fictitious names imported orders were given to wholesale houses, for which payment was to be made at one, two, or three months' date. The goods thus obtained were sent to receivers of stolen goods in Paris. The band then disappeared, to commence similar operations elsewhere. They were arrested at Rennes. Their leader, Audibert, when questioned before the magistrate, named M. Loque, a Parisian chemist, as the receiver of the stolen goods. One of Loque's letters had, in fact, been seized by the court at the *poste restante*, in which he gave an order. Loque owned the letter to be his, but stated he gave the order to what he believed to be a *bona-fide* firm at Caen, and not to Audibert. In spite of this defence he was sentenced to eight months' imprisonment. From this conviction he appealed. He had remarked some ill-formed letters or marks on the back of the suspected letter in question, and thought that this note might have served as a secret communication between Audibert and his accomplices. Counsel for the defence claimed examination of the incriminatory document by an expert, and, under the action of a chemical reagent, an entire letter became apparent. It proved to be a communication between Audibert and a receiver of stolen goods at Paris in reference to Loque, who, said the correspondent, refused to have anything to do with Audibert and his band. M. Loque was consequently acquitted by the court after this establishment of his innocence.

Trade Notes.

MESSRS. WM. G. DUNN & Co., makers of Baking Powder, have removed their offices at 21 Mincing Lane, to their works at 18 Katherine Street, Croydon.

In a new illustrated price-current just issued by Messrs. W. Butcher & Son, wholesale homœopathic chemists, full particulars and prices of Count Mattei's remedies are given.

MR. G. T. W. NEWSHOLME, of Sheffield, has now moved into much larger premises for the accommodation of his wholesale surgeons' trade. The factory he has taken was formerly occupied by Messrs. Hutton & Co., electric platers, and is situated in the centre of the town.

SEEDS FOR CHEMISTS' SALE.—Messrs. Potter & Clarke are offering at a moderate price a neatly-designed and convenient show-case for the penny packets of vegetable and flower seeds which they introduced to chemists last year. Many of their customers, they tell us, in country districts have found this business a great success, and are ordering double quantities for the new season. The seeds are put up in very gaily coloured pictorial envelopes, and a glazed show-card supplied by the same firm is resplendent with the glory of some fifty varieties of summer flowers. The seeds may also be bought in bulk. A new wholesale price-list has just been issued.

FRIABLE PILLS—Messrs. Johnson & Johnson, of Australian Avenue, are introducing into this country a new form of pill made by the "Upjohn Pill and Granule Company," of Kalamazoo, Michigan, U.S., the peculiarity of which is, that while they are made in a beautifully smooth sugar-coating, the ingredients inside are in the natural powdery condition, and are not combined by means of any excipient. The coating dissolves readily, and, of course, the pill material disintegrates at once. The samples sent to us are protoiodide of mercury, permanganate of potassium, anti-constipative, and sulphate of quinine. The quinine pills, we understand, are all made with Howards' quinine. There are scores of other pills made by this process, and special formulae can also be so prepared. These pills are notable products of modern pharmacy.

REGISTERED DRUGGISTS IN IRELAND.

BY an Order in Council dated February 17 and published in the *Dublin Gazette*, the Lord Lieutenant approves of the following regulations which have been made under the authority of the Pharmacy Act (Ireland), 1875, and the Amending Act of last year:—

EXAMINERS.

1. No member of Council shall be eligible for the office of examiner.
2. The appointment of examiner shall not be in force for more than one year; he shall be eligible for re-election annually, but not for more than a period of five years.
3. The Council shall elect fit and proper persons to be examiners, to conduct the examination as directed by the Pharmacy Act (Ireland), 1875, Amendment Act, 1890, 53 and 54 Vic., chap. 48, section 8, sub-section 3.

EXAMINATIONS.

1. Members of the Pharmaceutical Society and members of Council shall be permitted to be present at the examinations.
2. Candidates for the examination for the licence to act as registered druggists are required to send in a statutory declaration in the form set out in the Schedule C of the Pharmacy Act (Ireland), 1875, Amendment Act, 1890, or to the like effect, with an additional declaration in the form set out in Schedule D, or to the like effect, or such evidence as the Council may require, fourteen clear days before the stated meetings for examination, of their desire to be examined, accompanied by a receipt from the Bank of Ireland of having lodged the fee required to the credit of the Society. A committee of five shall be appointed, consisting of three pharmaceutical chemists and not more than two associate druggists, to examine the certificates or statutory declarations of candidates presenting themselves for the druggists' examination, whose duty it shall be to instruct the registrar if the certificates or statutory declarations do not conform to the regulations of the Council. Women may be admitted to the examinations for the licence to act as registered druggists, provided they shall have complied with the regulations of the Council of the Pharmaceutical Society of Ireland.
3. The fee for the examination of each candidate shall be half-a-guinea to each examiner. The fee to be paid by each candidate shall be four guineas. A rejected candidate may present himself for examination after a lapse of six months, on paying examiners' fees.
4. In the case of any examiner being unable to attend an examination at the time appointed, the president (or in his absence the vice-president) of the Pharmaceutical Society may appoint temporary examiners, who shall be entitled to the fees for examination.
5. The following shall be the form of certificate for candidates who have passed the examination qualifying them to act as registered druggists:—

EXAMINATION FOR REGISTERED DRUGGISTS.

I hereby certify that M ————— has passed the Examination for Registered Druggists, conducted by me on the ——— day of ——— 18——, and is hereby qualified to sell the scheduled poisons.

Examiner.

Registrar.

No. ———

6. A list of the names of the candidates who have passed the examinations, and have become registered druggists, shall be furnished by the examiner to the Council of the Pharmaceutical Society before its meeting next after the examination.
7. A register of the candidates who have passed the examination, and have become registered druggists, shall be kept by the registrar, the schedule to contain the name and address of each candidate, with the date of examination, and a record as to whether the candidate is at liberty to use the title of "chemist."
8. The registrar shall keep a confidential list of all

candidates who have been rejected, containing their names, addresses, and date of their rejection.

9. Any candidate who presents himself for examination shall be regarded as a rejected candidate if he does not attend the examination throughout, unless before retiring he shall have made the necessary number of marks to satisfy the examiner, or unless his absence shall be occasioned by illness (verified by medical certificate), or by other unavoidable cause, to the satisfaction of the Council of the Pharmaceutical Society of Ireland.

10. When, by reason of the death of the pharmaceutical chemist, or licentiate apothecary, or registered chemist and druggist, or registered druggist with whom the candidate may have completed a term of service as apprentice or assistant, or where from any cause it shall become impossible or inconvenient for the candidate to procure a certificate or statutory notice signed as directed by the Pharmacy Act (Ireland), 1875, Amendment Act, 1890, it shall be lawful for the Council of the Pharmaceutical Society to accept in lieu thereof such evidence as it shall consider satisfactory, showing that the candidate has actually and *bonâ fide* served such term as is directed by the Pharmacy Act (Ireland), 1875, Amendment Act, 1890.

11. Examinations to be held in Dublin the first Thursday of March, June, September, and December, or such other dates as the Council may deem necessary; and should twelve candidates from any one place make application to be examined an examination to be held at such place at an early subsequent date. *Vide* Amendment Act, clause 9, page 4.

12. With a view to proper supervision one member of Council, at least, shall be present during examinations.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

EREANT—VALPY.—On February 19, by the Rev. Paul Bichery, at St Saviour's Church, Jersey, H. Ereant, chemist and druggist, of Burleigh House, 16 Val Plaisant, Jersey, to Emélie Jane Valpy, only daughter of the late Matthew Philip Valpy, Esq.

DEATHS.

BURDGE.—On January 24, Mr. Samuel Burdge, chemist and druggist, High Street, Bristol. Aged 63.

HEWITT.—On February 17, Mr. Thomas Hewitt, chemist and druggist, Lorn Street, Hulme. Aged 73.

MOSS.—On February 16, at Southend-on-Sea, Thomas Abbot Moss, chemist and druggist, late manager to Messrs. Wratan & Co., Cambridge Street, W. Aged 38.

VAUGHAN.—We have received intimation of the death of Mr. James Vaughan, chemist and druggist, of Thornbury, Gloucestershire, at an advanced age. Our correspondent says he had carried on business in that place for nearly half a century. He was much respected in the town, and was a shrewd, careful man of business, and particular about using and vending drugs of good quality.

WHIFFEN.—On February 13, after long illness, Mary Frances Whiffen, the youngest daughter of Thomas Whiffen, Cerris House, Putney, and of Battersea, S.W.

WITHERS.—On February 3, at Handsworth, Mr. James Withers, chemist and druggist, Great Lister Street, Birmingham. Aged 75.

OXYGEN is now prepared by a process which Kastner has proposed, and which depends upon the fact that when plumbate of lime is heated with an alkaline carbonate it is decomposed into carbonate of lime and peroxide of lead, and at a higher temperature the peroxide is decomposed into protoxide of lead and oxygen gas. The mixture of protoxide of lead and carbonate of lime of the process remaining in the retort after the oxygen has all been collected is again transformed into plumbate of lime by passing the current of air through it, so that the manufacture of oxygen can in one charge be carried on almost continuously.

Jubilee of the Chemical Society of London.

THE celebration of the fiftieth anniversary of the foundation of the Chemical Society commenced on Tuesday afternoon in the Theatre of the London University. The meeting was worthy of the occasion. The audience numbered about 400, and included many distinguished persons. Beside Dr. W. J. Russell, F.R.S., the president, and other office-bearers on the platform, there were present Dr. John Evans, Lord Rayleigh and Professor Michael Foster, representing the Royal Society; Sir W. Grove, Sir Lyon Playfair, Sir F. A. Abel, and Sir H. E. Roscoe; M. Gantier, M. Combes, M. Haller, and M. de Clermont, representing the Société Chimique de Paris; Professor Will, representing the Deutsche Chemische Gesellschaft; Dr. Holtz, representing the Verein zur Wahrung Chemische Industrie, and Professor Victor Meyer. The Pharmaceutical Society was represented by Messrs. Carteighe, Bottle and Hampson, and Professors Atfield and Dunstan. A good many pharmaceutical fellows were present. The programme of the meeting was as follows:—

1. Introductory speech by the President, Dr. Russell.
2. Address by the Rt. Hon. Sir Wm. Grove, } Original
3. Address by the Rt. Hon. Sir Lyon Playfair, } Fellows of
4. Address by Dr. Longstaff, } the Society.
5. Presentation, by Mr. R. Warrington, of album containing portraits of original fellows and letters relating to the formation of the Society.
6. Address by Professor Odling on the development of chemical theory since the foundation of the Society.
7. Presentation of addresses from—
 - (a) The Royal Society.
 - (b) The Pharmaceutical Society.
 - (c) The Société Chimique de Paris.
 - (d) The Deutsche Chemische Gesellschaft.
 - (e) The Russian Physico-Chemical Society.
8. Letters from foreign members.

Rising at about five minutes past three,

DR. RUSSELL

opened his address with a passing remark regarding the weather—the dense fog having kept Dr. Longstaff away, and Sir W. Grove had not yet arrived. But there were others present who assisted in the formation of the society. The society, he continued, was the first founded for the study of chemistry. Hitherto chemistry and physics had been associated, but on February 23, 1841, twenty-five persons met in the Society of Arts for the purpose of considering the advisability of forming a Chemical Society, and of these persons Sir W. Grove, Sir Lyon Playfair, Mr. Heisch, and Mr. J. Cock were still alive. The President proceeded to describe the preliminary work of the foundation, remarking that it was the product of Robert Warrington, and it was pleasing to him to think that the Robert Warrington of to-day was one of their active members and a vice-president of the Society. (Applause.)

At this point Sir W. Grove arrived, and was received with hearty cheers.

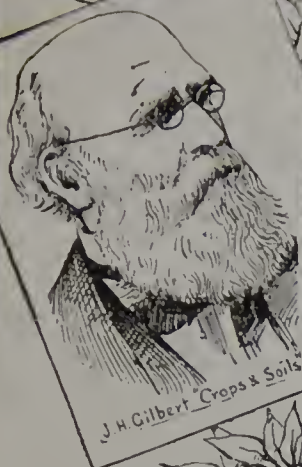
Dr. Russell, continuing, said that he had done Sir William an injustice in attributing his absence to the weather. He then proceeded to sketch the condition of chemistry in the thirties and forties. There were then few public laboratories in England; indeed, Scotland was before it in that respect by several years. Private pupils were the rule, and when Graham came to London he received a few pupils. There was little encouragement to study the science, for people considered those who did so to be eccentric individuals. The College of Chemistry started in 1842, and was the first laboratory in London; there were others, and the Pharmaceutical Society opened one for its special branch in 1843. Dr. Russell, in rapid sentences, referred to the deplorable condition of experimental chemistry in those days, and then showed how Dr. Thomas Graham, Sir Robert Kane, and Johnston, of Dublin, each influenced the progress to

better things. Faraday he did not claim as a chemist, for by that time he had entered upon his physical researches, which absorbed all his remaining years. It was in 1840 that Sir John Herschell began to make discoveries in optics which brought photography into the range of possibility. Herschell studied the dark rays of the spectrum which are chemically active, and demonstrated the property of hyposulphite of soda in fixing the silver reduction caused by such rays. Fox-Talbot's work was also spoken of, and that, too, of Robert Hunt; while it was mentioned that this is the jubilee year of Clark's soap-test for the hardness of water. Then, after references to the curious scientific literature of 1841—one, Dr. Robert Rigg having demonstrated to his own satisfaction that during fermentation of solutions, earthy and alkaline salts increase, and another, Brown, of Edinburgh, telling the Royal Society of that city how carbon may be transformed into silicon—Dr. Russell went on to speak of the discoveries of Dalton, Cavendish, and other famous chemists of the century, and traced the growth of interest in chemistry, attributing the start in this country to Liebig who was the trainer of many of the founders of the Chemical Society. These references, concluded Dr. Russell, were merely the prologue of what was to follow, as the founders present would take up the story from where he left off.

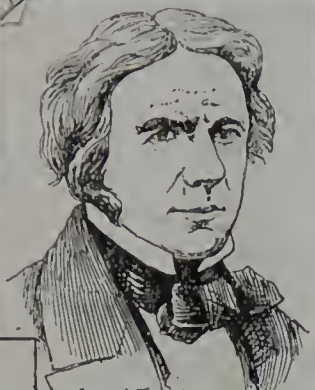
SIR LYON PLAYFAIR

was the next speaker, and his first words were of the remnant of the old nobility of his science then present. It is a sad feeling, said he, that only three of the founders are now left among us. When they met in 1841 to form the Society, chemistry was being rapidly developed, rapidly evolved into definite shape. Organic chemistry was almost founded, and when he looked back upon the past, he felt that a few names would represent milestones on the path of progress. Then Liebig was *facile princeps*, the chemist of the world. (Applause.) Hofmann, his pupil, had scarcely risen on the horizon of the science. Kopp and Bunsen had published their first researches, but Wöhler, the dear friend of Liebig, had already done much of his work, and Mitscherlich, whom he might call the aristocrat of chemistry, had enunciated his theory of isomorphism. Rosé, one of the speaker's dearest friends, he mentioned as having made analysis beautiful; and others he named, including Rammelsberg, the physicist, to show what was going on in Germany then. France was not standing still. At that time a man who the other day was ancient was then a veteran—he referred to Chevreul. (Great applause.) His work was known to all interested in chemistry. There was Courtois, the discoverer of iodine, Dumas, Fremy, Pelouze, and Renault. These were the great luminaries in France. Whom had they in England? There was his old teacher, Graham, in London—(applause)—Dalton, in Manchester, who had done so much by his atomic theory to place chemistry upon a higher platform; Faraday, the prince of electricians; his dear friend Grove, the author of the "Co-relation of the Physical Forces"; and Jonle, who completed the mechanical relationship required to bring the two together. (Applause.) Fifty years was a long time in the history of an individual, but it was a mere mathematical point in a science, for, although they considered that chemistry was of recent origin, he took it that the moment men began to study matter there was chemistry. It began with the ancient philosophers, such as Aristotle—(applause)—who speculated on elementary matter. Although chemists and microscopists were often twitted with paying attention to small things, as compared with astronomers, he claimed that chemistry had of recent years shown to astronomers the way to the constitution of the stars, and how new worlds are formed. ("Hear, hear," and applause.) Having said all this of the past he would like to encourage them as to the future. Let them think, when they looked back on the fifty years, what chemistry might be at the end of a century. Analysis was leading to synthesis. They had doubts now as to the identity of the elements. They had to study the peculiar chemical transformations associated with physiological action. These and many more riddles were to be solved, such as the inner meaning of the periodic law and the motions of atoms. But there always comes a time in history when a man appears to revolutionise knowledge. There was a Newton once, and in the next fifty years there might arise a Newton in chemistry, who might

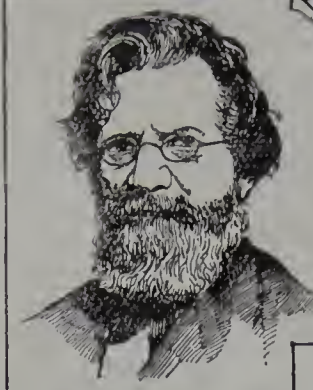
FAMOUS FELLOWS OF



J. H. Gilbert "Crops & Soils"



Michael Faraday
"Electro-Chemistry"



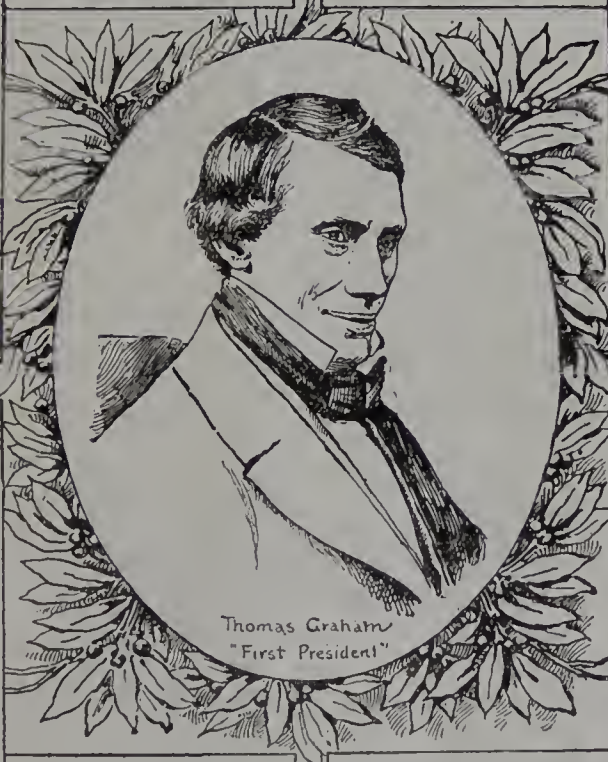
A. von Hofmann "Aniline"



W. H. Perkin "Mauve"



Sir F. Abel "Gunpowder"



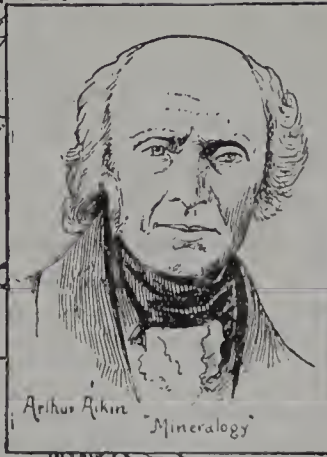
Thomas Graham
"First President"



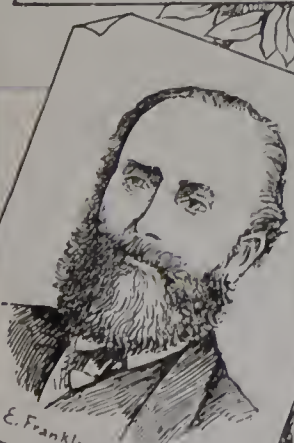
Sir H. E. Roscoe "Spectrum Analysis"



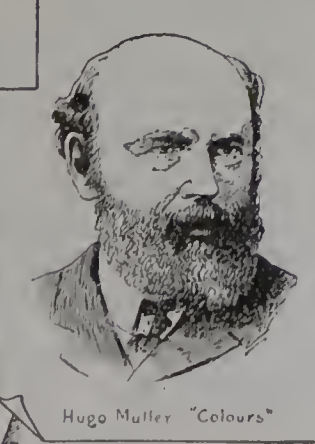
Robt Warrington "Drugs"



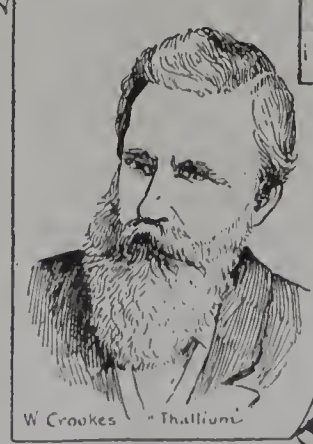
Arthur Aikin "Mineralogy"



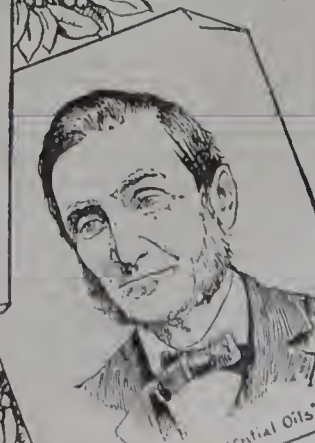
E. Frankland "Water"



Hugo Muller "Colours"



W. Crookes "Thallium"



J. H. Stoddard "Essential Oils"

THE CHEMICAL SOCIETY

discover laws of the affinity and motion of atoms, which would change the science as radically as Newton had changed their conceptions regarding the motion of worlds. Some of the young men present that day would see the chemistry of the future, and he fancied that they would look back and be surprised at the chemistry of to-day. He could not conclude more fitly than in the words of the poet:—

And men through novel spheres of thought,
Still moving after truth long sought,
Will learn new things when I am not.

Thou hast not gain'd a real height,
Nor art thou nearer to the light,
Because the scale is infinite.

Sir Lyon Playfair resumed his seat amidst great applause, and the President called upon

SIR WILLIAM GROVE.

There was in the audience a hush of that respect which civilisation gives to old age. And here, truly, was a magnificent old man—one of the geniuses of the century. The great jurist and scientist has the appearance of a distinguished man. He is of herculean proportions, and, though long past the allotted span of life, the shoulders are scarce stooped and the hand not palsied. He wore a suit of rough grey homespun, matching his iron-grey hair. There is life in the old man, too; still plenty of the wit which one does not look for in a master of abstract science. He showed this in his opening sentences. "My qualification for addressing you," said he, "is not one of great distinction: in fact, it is that of old age, which has its privileges and its disadvantages. The former allows me to inflict myself upon you. One of the latter is the want of memory." Then Sir William went on to say that his main qualification for the position which he then occupied seemed to be that he was a survival of the unfittest; but he would tell them, as far as he could remember, what actually took place at the formation of the society. Professor Graham was really the man who brought them all together. They were anxious to have Faraday as their first president, and he (Sir William) had gone and asked him, but for some reason or other he declined. At that time Faraday thought he would do most service to science by continuing the research in which he was engaged. So they had Graham for first president. The others who were associated with him he could not remember, but they would find them all mentioned in the charter; and now the only one he could recognise in the meeting that day was his old friend Playfair—clapping him on the shoulder, and adding, amidst great laughter, "and myself." "Amongst my old friends," proceeded Sir William, "whom I am surprised not to find named amongst the founders is

MY FRIEND JACOB BELL.

We used to meet in his house in Oxford Street, and he took great interest in all our work. He was a very good fellow, a man of culture, and a good chemist too. He was the man, you are aware, who was the means of introducing good, pure, unadulterated drugs into this country. I know his place well, and I spend four shillings in his establishment every year." This last remark created great laughter, and then Sir William spoke of Dalton. He had heard him deliver the only lecture which Dalton ever delivered in London. It was at the Royal Institution, and was upon the atomic theory. His recollection of Dalton was that he was a man very much wrapped up in his subject, and his speech was unadorned but expressive. He recollected having seen, after the lecture, Dalton's drawings of his atoms. He represented them as spheres, and showed their union into molecules—I suppose, said Sir William, you call them that now—his idea being that they economised space by being pressed into hexagons. Nitrogen, ozone, nitric acid, and another acid—he forgot its name—were represented that way. Sir William proceeded to speak of this in detail, apparently wandering a little, but the main idea was that Dalton thought atoms were symmetrical and tough bodies which could be compressed into hexagons. He regretted that Dalton had adopted the name "atomic theory." It was unfortunate to his thinking, because it simply meant a thing which could not be divided, and that was in a sense ridiculous. Although Sir William Thomson had measured an atom—not with a rule and compass—it seemed to him that the infinitely small

was as absolutely incomprehensible as the infinitely great. (Applause.) He would have called the atom *minima*—if there is such a thing at all. Well, Dalton's law was the universal basis of the chemistry of to-day. He would not attempt to give a summary of what had been done in the science during the fifty years; it would take too much time, and would weary them—more so as it was all in the *Standard* that morning—(laughter)—at least, some of it. Then Sir William went on to speak about the interesting and the practical in science. He liked the first the best, and told the meeting why. This took him into the region of science in which he used to work, and he mentioned that he ought to have discovered the spectroscope. He was working with the sparks of metals in the electric arc, and saw the lines. If he had had an ordinary amount of sense he would have thought what these lines were—the reverse of the solar spectrum. If he had he would have made the discovery instead of Herschel. (Laughter.) This reminded him of the man who found fault with the world, and who said that if he had been there at the time he would have made it a great deal better. (Renewed laughter.) In concluding the speaker said that he had been blamed for one thing—giving up chemistry for the Bar. He was a barrister before he took to chemistry, although he had not a large practice; indeed, that enabled him to take to chemistry—(laughter)—but the fact was, he was influenced by an occurrence which frequently happened in nature—a large family. (Laughter.) In his career as a barrister—and he hoped an honourable one—(laughter)—he obtained what was wanted. In referring to the future of the society, he suggested that the members should endeavour to prevent London fogs under a constitutional Government, and amidst great laughter and applause, Sir William Grove resumed his seat.

Dr. RUSSELL thanked him for his address, and called upon

MR. WARINGTON,

who said that his father, the first secretary of the society, had preserved the various papers in relation to the formation of the society, and he (the speaker) had had these collected, arranged, and bound, and it was now his duty to present the volume as a souvenir of the day. The letters were from gentlemen in reply to the circular which had been sent out. They were arranged alphabetically in the volume, and he had added portraits in platinotype of as many of the originals as could be obtained. There were seventy-seven original fellows. The album contained seventy letters and seventy-four portraits. Rather more than half of the portraits had been photographed by Professor Thomson, of King's College. Giving a rough analysis of the distribution of the seventy-seven original members, Mr. Warington said forty of them resided in London, fourteen in Scotland (eight of these in Glasgow), five in Lancashire, and the rest in Oxford, Cambridge, Durham, Newcastle, Belfast, Dublin, &c. All the teachers of chemistry in London, except the lecturer in the London Hospital, were there; and he mentioned also the different professions and industries which were represented by the original members, and the cordiality with which they all took the matter up.

Dr. RUSSELL, in accepting the album, said that this most interesting and valuable gift would be placed with the heirlooms of the society, and would be amongst the most cherished of them, while it would also be a permanent record of Mr. Warington's good feeling towards the society, and of what his father had done for it. (Applause.)

Sir WILLIAM GROVE had not heard the remark about the photographs being permanent, and he rose to speak about that; but, the matter having been explained, he merely said that one can preserve photographs perfectly and permanently—at least, they had been good as long as he lived—by soaking them in mastic varnish, which gets into the photographs and protects the silver. It is not the surface varnish which does it, but the varnish in the paper.

PROFESSOR ODLING

was the next speaker, and rarely has one the opportunity of hearing such a discourse as the one he delivered. Exquisite in composition, with facts well marshalled, and each sentence showing intimate knowledge of the new chemical philosophy, the address will in the future rank as the feature of the meeting. Dr. Odling delivered it with excellent emphasis,

and without notes. The progress of chemistry during the last fifty years, he said, can only be estimated by the esoteric few. As doctrine and application go hand in hand, we find that the development of modern chemical industry is in a large measure the direct result of laboratory work. Industry, on the other hand, has offered to the science new and varied bodies in a most bountiful way, whereby the chemist had forced upon him a sense of the groundlessness of his deepest convictions regarding chemical constitution. But, putting them to the test of rigid proof, he would say this much of the chemical doctrines of the present—that they depend upon research having a wider basis than was apparent in the past. This was the proof that the deductions were better than were before obtainable. Black, the immediate predecessor of Lavoisier, had studied the effects of heat and mixture with the view of studying the arts and secrets of nature. Nowadays the arts have given us the means of unfolding many of the closest secrets of nature, for with the advance of synthesis—first worked upon by Wöhler in 1854, and by Berthelot, one of their most distinguished foreign members, while other chemists have not hesitated to venture upon the work—such things as oil of wintergreen and madder were produced by processes of commercial synthesis, which Berthelot practically opened up. When they thought of the work of Emil Fischer on the synthesis of sugars—(applause)—and many other processes, which time forbade him to enumerate, they felt that they must say “good-bye” to the old idea of vital force. For these synthetic bodies were a manifestation of the same mysterious force. He thought he might say that our ideas have not only undergone a change, but a revulsion. Another set of facts, *pari passu*, was included under the theory of dissociation, identified with the name of St. Clair Deville. In that society they were not likely to forget that the most remarkable instances of dissociation were discovered by Sir William Grove—(applause)—who, in an address to the British Association in 1846, showed how the vapour of water behaved under the influence of incandescent platinum in the electric arc. Bunsen was also connected with that theory, and it all depended upon the law enunciated by Ampere and Avogadro. In the fifty years the theories of the solution of salts, of diffusion, of osmotic pressure, of electrolysis, had all undergone transformation, Graham throwing light upon osmosis and Faraday on electrolysis. Although Faraday had refused the presidency of their society, owing to his connection with other branches of science, he had never lost sight of chemistry, and for many years he was a regular attendant at the annual meetings. Passing on to the study of matter at high temperatures, Professor Odling said that the research in this department of the science had enabled Bunsen and Kirchhoff in 1859 to discover spectrum analysis, by which chemistry was promoted from its merely terrestrial position to that of a cosmic science. How important, he said, were the advances which that discovery has produced even in our conceptions of the nature and mutual relations of the elements! It had enabled many chemists—several of their distinguished fellows—to enter upon the study of the nature of the elements, which in the future might lead to important truths, although at present they were not prepared to see clearly what the result would be. Then there was the question of combining ratios of the elements. How these are associated with each other was a matter which had been intimately studied during the fifty years, and the answer constituted the most characteristic advance of the period. If anyone were to ask what was the great advance in chemistry during the period, he would say that it was that; and he proceeded to epitomise the chief discoveries which had led up to the revolution of atomic weights, the work of Gerhardt, Würtz, Faraday, and others being mentioned. The great influence which their discoveries have exerted upon the development of the science, and their insistence upon the reacting weight unit being the same as the physical relative weights of the elements, were touched upon, and Professor Odling showed how the revision of the atomic weights brought with it important alterations and conceptions regarding valency, replacing power, &c. Frankland's work having been referred to, he proceeded to speak of the periodic law, first discovered by Newlands—(applause)—but afterwards more fully elaborated by Mendeleef, showing how the elements, previously considered isolate, were

brought into kinship by virtue of their periodic functions. This conception was one of the grandest advances of the period, and it has opened the way to much more work of importance. It had enabled Kekulé to formulate a law—based upon the knowledge of mutual saturation and acidities derived from a study of the paraffins, benzines, and similar bodies—which was the foundation of an entirely new view of organic chemistry. Then a phenomenon of distinct recognition was that of isomerism. It was thought when the word was applied to chemistry that it was an unfortunate selection, but the studies which were now grouped under it were the greatest triumphs of modern chemistry. Had time permitted, he should have spoken of the work of Lebel and Van't Hoff, which was of immense value; and he should have had to discuss how these bore upon the original atomic theory of Dalton and the chemical theories generally which were accepted at the time when the society was formed; but he had to content himself with mere references, although he felt sufficient had been said to show the nature and extent of the progress which the science had made since the society was founded. (Applause.)

PRESENTATION OF ADDRESSES.

Dr. JOHN EVANS, treasurer of the Royal Society, being called upon, said that as he, as treasurer, and the two secretaries of the Society were present, it was thought unnecessary to present a written address. As the parent society of all the learned societies, the Royal Society took great interest in each branch of science, and they would be wanting in interest if they had not been there that day to congratulate the Chemical Society on their fiftieth birthday. Dr. Evans then proceeded to speak of some of the things that the Royal Society has done for chemistry, its association now with Sir John Lawes' Trust, and after general and rather commonplace remarks about the progress of chemistry, in the name of the Royal Society congratulated the Chemical Society on its brilliant past, and tendered good wishes for the future.

Dr. RUSSELL thanked Dr. Evans, and called upon

Mr. CARTEIGHE, who, rising, read the engrossed address of the Council and professors of the Pharmaceutical Society. It was a remarkable address, recalling the fact that the Pharmaceutical Society was founded on April 15, 1841; some of the most important members had been fellows of Chemical Society, and the Pharmaceutical Society's charter of incorporation, granted in 1843, mentioned one of the purposes of the Society as the promotion of chemistry. One of the founders of the Chemical Society, George Fownes, the assistant of Professor Graham, was the first professor of the Pharmaceutical Society, and Professor Redwood, his successor, had been treasurer, secretary, and a vice-president of the Chemical Society for many years. The address went on to speak of the Research Laboratory, which is mainly devoted, it was stated, to the promotion of chemistry in its higher branches, as well as to pharmacological research, and concluded by wishing continued prosperity to the Chemical Society.

Dr. RUSSELL, in his reply, said they all felt how nearly the two societies were associated, and hoped that the connection between them would be long continued.

M. GAUTIER, of the Société Chimique de Paris, who was received with loud applause on rising, then addressed the meeting in French. M. Gautier regretted his inability to make a speech in English, and declared that he had found additional cause that day to deplore the incompetence of his knowledge of our language, inasmuch as he had experienced great difficulty in following the various speeches which had been delivered. But if he was unable to speak to them in their own tongue, he could at any rate assure them that no more congenial duty could devolve upon a French *savant* than that of doing homage to a British fellow-scientist. Even from before the commencement of this century there had existed between French and British men of science a specially strong bond of sympathy. He had always found his British friends exceptionally well informed on all matters connected with the progress of science in France, and in that country they greatly admired the admirable manner in which English journals kept abreast of all that transpired in French scientific circles. Moreover, although himself more especially connected with the theoretical side of chemistry, it was impossible for him not to remember that

the advancement of the practical branch of that science in particular was in a very great measure due to English chemists and men of science. In congratulating the Chemical Society most heartily upon the attainment of its jubilee, and in wishing it, in the name of the chemists of France, a still more prosperous and brilliant future, he begged to thank them most heartily for the hospitality extended to his compatriots by their English *confrères*. He was commissioned by several of his colleagues and co-scientists, among whom he might mention MM. de Clermont, Haller, Friedel, and Combes, who asked him to convey to the Chemical Society the assurance of their regret at their inability to be present at its festival. His illustrious compatriot, M. Pasteur, desired especially to express his disappointment that the state of his health precluded him from being present in London on that day, and M. Berthelot, he knew, was only prevented from being there that day by the fact that he found it impossible to tear himself away from his duties as a member of an important commission, appointed by the French Ministry of Public Instruction, and as a Senator. In conclusion, he begged to assure them again of the happiness which the learned societies of France experienced in being able to wish to the British Chemical Society success and prosperity, and to seize this opportunity of assuring them of the high esteem in which that society had always been, and should ever be, held by its French sister organisations. (Cheers.)

The PRESIDENT having formally thanked M. Gautier, Dr. H. WILL, of the Deutsche Chemische Gesellschaft, then, after a few sentences in English, read an address in German on behalf of the society represented by him. Dr. Will read from a copy of the address, the original being a magnificent work of art by the celebrated German painter, Röhling. The title-page was pictorial, including symbolical female and infantile figures, and the text was beautifully illuminated in Old German character. The cover was an excellent specimen of the binder's art, the outside being in embossed leather, lined inside with figured silk. The document stated that among the large number of learned corporations which were on this occasion testifying to their esteem and admiration of the Chemical Society, the Deutsche Chemische Gesellschaft also desired to take its place. The name of Thomas Graham was honoured not only in Great Britain, but far beyond its borders. The address then proceeded to contrast the condition of chemical science at the time of the founding of the society with that of the present day, and referred to the growing power and commercial importance of the British colonies, and the increasing attention given in those parts to the study of chemical science, and of the societies springing up in these young countries and in America for the purpose of furthering the study of the science to which they were devoted. In Germany also the society which he represented had contributed its share towards the development of the science and towards industrial chemistry. In conclusion the hope was expressed that after another period of fifty years the society might be able to look back upon an equally bright record of work accomplished, and a roll of names as illustrious as that which graced the record of the first half-century of its existence.

The next speaker was Dr. HOLTZ, representing the German "Verein zur Wahrung Chemischer Industrien," who, also reading from a German manuscript, offered to the society the congratulations of the corporation represented by him. In doing so he pointed out that the technical and the scientific branches of chemistry were indissolubly linked together. In the course of time other countries, it was true, had witnessed the foundation of independent chemical industries on their soil, but still to Great Britain belonged the honour of having been the spot where the great chemical industry was created and cradled. The part she still played in that industry, and a long array of names of illustrious British investigators enshrined in history, imposed it upon the German Union of Chemical Industries as a pleasant duty to send its representative to England on this occasion to offer, in its name, its hearty wishes for the prosperity and glory of the Chemical Society. The speaker then briefly reviewed the rise and development of the British alkali industry, the paraffin industry—now also firmly rooted in Germany—the investigations in the domains of hydrocarbons and ferments,

and the "brilliant industry of coal-tar dyes" which, originating in this country, has now attained such enormous dimensions both in Germany and in Britain. He concluded by saying that no greater advantage would accrue to the chemical investigator than to be versed in the processes and inured in the methods of study of chemistry of both Germany and Britain, and that happy indeed was he who, in addition to that knowledge, had enjoyed the hospitality extended in the imposing halls of Burlington House.

Dr. RUSSELL acknowledged both these addresses, and thanked Dr. Will for his beautiful gift.

Professor ARMSTRONG then read the address from the Russian Physico-Chemical Society, which was printed in Russian and English. The address stated that the society sent to its oldest brother society, the London Chemical Society, its most heartfelt congratulations on the fiftieth anniversary of its foundation. An unbroken chain of glorious names of British chemists, it proceeded to say, is a certain pledge that, in the future as in the past, England will retain its foremost place at the head of scientific progress, to the glory of universal science, and the welfare of mankind. The address was signed by Mendeleef. Thereafter Dr. Armstrong mentioned that telegrams and letters of congratulation had been received from Dr. von Bayer on behalf of the Munich Chemical Society, from the societies at Frankfort, Upsala—indeed, from all parts of the world. The meeting then adjourned.

THE SOIREE.

Half-past eight was the hour fixed for the reception at Goldsmiths' Hall, but calculations were made without the fog, and at that hour Professor and Miss Attfield were taking the place of the President in receiving guests, who, however, were few until a quarter of an hour later, and they began to arrive up till ten o'clock. The Lord Mayor was there with the Lady Mayoress on his arm; so was the Prime Warden of the Goldsmiths' Company, the foreign guests, distinguished fellows of the society, a few public men—altogether about 800. And it was a brilliant company of "fair women and brave men"—if we may be allowed to call the heroes of science brave. The CHEMIST AND DRUGGIST man did not take notes of the costumes; it was enough for him to keep clear of the trains, as he wandered round inspecting the unique exhibit of apparatus and specimens in the hall.

The Goldsmiths' Company is the richest in London, and its hall is the palace of the City. The grand staircase is a marvel in marble, and the hall proper is of extensive proportions, the crystal candelabra, with their hundreds of wax candles burning, giving an old-world yet cheerful aspect to the hall. At the south end of the hall the Royal Artillery band played a selection of music during the evening. It is not possible to do justice to the exhibition of apparatus and chemicals in a short notice. There were specimens to show

WHAT FAMOUS CHEMISTS WORKED WITH,

and what they made; and there were collections by living fellows of the Society which might themselves be taken as a proof of the great advance which science has made in the century. For instance, one could not help contrasting the pair of scales which belonged to Scheele, and which he gave to his pupil Orfila, with the modern chemical balances which have assisted in redeterminations of atomic weights—even those used by Davy and Young. Scheele's scale pans were no bigger than a crown, not any better than what one puts in a ship's medicine-chest now, and the case would pass for a spectacle-case. There was a very curious balance in a rough wood case, made by one Harrison for Henry Cavendish, and given to Davy by Lord George Cavendish in 1830. This was the one that Cavendish used in his physical and chemical investigations. There were some of Dalton's home-made apparatus, and excellent old engravings of Boyle's laboratory in Southampton Street, Covent Garden, where

AMBROSE GODFREY HANCKWITZ

worked, and which up till 1862 was used by Messrs. Godfrey & Cooke. The engravings belong to Mr. Joseph Ince, and were part of a collection brought together by Professor

Dunstan, there being also a specimen of phosphorus made by Hanckwitz about the year 1680. At the time when this phosphorus was prepared Hanckwitz was Boyle's assistant, and he obtained it from urine by the method described in Boyle's posthumously-published paper (Phil. Trans. 1693). For many years subsequently Hanckwitz was the only manufacturer of the substance in Europe. He claims to have been the first to obtain the element in a solid "glacial" form (*phosphorus glacialis urinae*). In the account (Phil. Trans. 1733) which he gave of his method to the Royal Society in 1733 it is stated: "An operator that is not well versed in the degrees of fire, and does not know how and when to take away these oils apart, will have nothing but a volatile salt and fetid oil, and get at least only a little unctuous opaque phosphorus; such as the famous Kunckel, Dr. Krafft, and Brandt did, as they acknowledged in their writings, but not our hard transparent phosphorus."

There were a good many specimens from the Pharmaceutical Museum, and the chief public collections in the country were drawn upon for the occasion. Sir John Herschel's

FIRST ATTEMPTS AT PHOTOGRAPHY

were shown by Professor A. S. Herschel. They are not bad photos now, though it is fifty-two years since they were taken, and this is how Herschel describes the process in his MS. journal of chemical experiments:—

"Having precipitated muriate of silver in a very delicately divided state from water very slightly muriated, it was allowed to settle on a glass plate; after forty-eight hours it had formed a film thin enough to bear drawing off the water very slowly by a siphon, and drying. Having dried it, I found that it was very little affected by light, but by washing with weak nitrate of silver and drying, it became highly sensible. In this state I took a camera-picture of the telescope on it. Hyposulphite of soda then poured cautiously down washes away the muriate of silver and leaves a beautiful delicate film of silver representing the picture. If then the other side of the glass be smoked and black varnished, the effect is much resembling daguerreotype, being dark on white as in nature, and also right and left as in nature, as if on polished silver."

Photography, indeed, was well represented in the exhibition, Warren de la Rue's first attempts on the moon being shown, and there was an interesting group showing how drawings made with fluorescent substances, such as quinine, which are invisible to the eye, but are caught and recorded by the sensitive plate just as if they were black. Faraday, Graham, Brodie, Warrington, Joule, Thomas Thomson, Fownes, were all brought to mind again in exhibits of apparatus which they had used or chemicals they had made, Warrington's memory especially being recalled by the presentation album and early photographs and daguerreotype. Most of the presidents of the society still living sent specimens

TO ILLUSTRATE THEIR LIFE WORK.

"Ah! there's Frankland's old digester," said Professor Attfield to our reporter; "many a time I have used it." It was the one employed in the production of organo-metallic compounds in 1850, and it had a place on Tuesday night beside a score of interesting organic compounds. Sir F. A. Abel, Sir H. E. Roscoe, Dr. Perkin, and Dr. Müller showed compounds made by them; but Mr. Crookes had the palm for variety and beauty of show, his specimens representing forty years of personal work in chemistry and physics. Dr. Perkin's collection of organic compounds was exceptionally fine, and there was a great deal of interest shown in the exhibits by Dr. J. H. Gilbert illustrating the work at Rothamsted by Sir John Lawes and himself. Nor should we forget to mention that in one of the reception-rooms there was a collection of photographs of past presidents and leading fellows of the society, which appeared to be appreciated. In fact, the whole affair was exceptionally brilliant, and those who were there appeared to think so, and to enjoy it—thanks to the secretaries, Professors H. E. Armstrong and J. M. Thomson.

JUBILEE DINNER.

Why is it that Englishmen make the dinners the consummation of all great functions? In the gastronomic art

we by no means hold the position that the world gives us in science. We import our cooks and our waiters. In spite of the energies of constitutional gentlemen, most of our delicacies are foreign; and we enjoy them—especially at a public dinner. The energies of the executive of the Chemical Society seemed to be focussed, upon the dinner in the Whitehall Rooms of the Hotel Métropole on Wednesday night. It was a great occasion, unquestionably. There were 230 gentlemen present. Two Cabinet Ministers—the Marquis of Salisbury and the Attorney-General—were the principal guests; foreign science sent a few of her most famous men—Victor Meyer, the peer of them all, amongst them. Altogether the company was notable: the learned societies of this country (except the Royal) were mostly represented by their presidents. The foreign guests were MM. R. de Clermont, de Clermont, A. Gautier, A. Combes, and A. Haller—all but the first being delegates of the Société Chimique de Paris. Professor Victor Meyer was the representative of the foreign members of the society; Dr. Will was the delegate of the Deutsche Chemische Gesellschaft; and Dr. J. F. Holtz was for the Verein zur Wahrung Chemischer Industrien. Dr. W. J. Russell presided, and the chairmen of the spur-tables were Mr. C. S. Groves, editor of the *Journal*, Professor John M. Thomson, secretary, Professor T. E. Thorpe, treasurer, Dr. W. H. Perkin, a past secretary and president, Dr. H. E. Armstrong, secretary, Professor Meldola, and Mr. A. J. Greenaway, sub editor. The representatives of pharmacy and its branches, in addition to the President of the Pharmaceutical Society, who was a guest, were Professors Attfield and Dunstan, Messrs. A. Bottle, T. S. Dymond, C. Ekin, G. B. Francis, A. W. Gerrard, H. B. Helbing, Walter Hills, D. Howard, J. Hughes (Idris & Co.), H. Jackson, C. T. Kingzett, H. Lescher, W. Martindale, A. H. Mason, F. M. Rimmington (Bradford), J. Robbins, P. G. W. Typke, T. Tyrer, G. Ward (Leeds), C. H. Wood, and A. M. Zimmermann. The original members present were Sir Lyon Playfair and Mr. C. Hirsch, both men of vigour still.

Dinner was served at 7 o'clock, and the *ménu* was so long and arduous that it was 9 o'clock before the President rose to propose the health of "The Queen," the outstanding feature of her reign on this occasion being the progress of chemistry. Then followed "The Prince and Princess of Wales, and the rest of the Royal Family," allusion being made to the fact that the Prince's chemical tutor was Sir F. Abel, who now advises him about sundry Imperial matters. "Those who wish may indulge in a smoke now," said Dr. Russell, when his loyal functions were exhausted, and then he read a New York cablegram congratulating the Society in the name of American Chemical Societies. This was the list of

Toasts.

By the President.

1. HER MOST GRACIOUS MAJESTY THE QUEEN.
2. THEIR ROYAL HIGHNESSES THE PRINCE AND PRINCESS OF WALES AND THE REST OF THE ROYAL FAMILY.
3. THE JUBILEE OF THE CHEMICAL SOCIETY.

By the Rt. Hon. the Marquis of Salisbury.

4. PROSPERITY TO THE CHEMICAL SOCIETY, coupled with the name of THE RT. HON. SIR LYON PLAYFAIR.

By the Chairman of the Society of Arts.

5. SCIENCE AND INDUSTRY, coupled with the name of SIR HENRY ROSCOE.

By Professor Frankland.

6. THE DELEGATES OF FOREIGN CHEMICAL SOCIETIES, coupled with the names of M. GAUTIER and DR. WILL.

By Sir Frederick Abel.

7. OUR FOREIGN MEMBERS AND OUR VISITORS, coupled with the names of PROFESSOR VICTOR MEYER and SIR ANDREW CLARK BART.

By the President of the Pharmaceutical Society.

8. THE PRESIDENTS PAST AND PRESENT.

DR. RUSSELL, next rising to deliver

THE JUBILEE SPEECH,

said he felt his position an embarrassing one, for with the Marquis of Salisbury on his right hand, the Attorney-General

on his left, and in the presence of 230 fellows of the society, it was not easy, in a 15 minutes after-dinner speech, to review fifty years' progress of science. They claimed that in 1841 chemistry was a sufficiently broad science to require a distinct branch of its own; and so the Chemical Society was formed, and that at the right time. He attributed much of the awakened interest in chemistry at that time and the early progress of the society to Liebig, whose school at Giessen, and the 200 papers which he published, drew students from all parts of the world. Amongst these students was Lyon Playfair, who, coming back to England full of enthusiasm about Liebig and chemistry, imbued others with his enthusiasm, and even went to the north of England and told the calico-printers of Manchester they did not understand their business—that they wasted their colours, and that economy of material and brilliancy of colour would be assured by their studying Dalton's atomic theory. (Laughter.) Then the President proceeded to tell how the College of Chemistry was founded and became a small Giessen in Oxford Street in 1845. Here came Hofmann to teach, and to him Dr. Russell attributed the great interest and progress which chemistry shows from that date. Allusion was made to the work which Dumas, Gerhardt, and others were at that time pursuing, and the researches of Frankland, Williamson, and Odling were also spoken of, and their influence upon the science shown. Up till 1848 nobody troubled themselves about the simple hydrocarbons, but then Mansfield showed how to obtain benzene from coal-tar. This was the starting-point of the remarkable achievements which have been made in organic synthesis, and in which Dr. Perkin has done so much work for art and beauty. Passing on to considerations of the abstract side of the science, Dr. Russell referred to the discovery of the periodic law; the labours of Kirchhoff and Bunsen on the spectro-scope, which might be regarded as the most important discovery of the latter half of the society's life; and reference was also made, amidst applause, to Crookes's life-work. But, in concluding, he took the synthetical branch of chemistry as furnishing a striking answer to the question, What had the chemist done during the last half-a-century? How little could the twenty-five chemists who founded the society fifty years ago have imagined what the knowledge of to-day would be! To-day they were equally unable to predict the chemistry of fifty years hence; but what they could with certainty predict was that, great and rapid as the progress of their science had been during the last half-century, still more important and still more rapid would be its progress in the time to come. (Cheers.)

THE PRIME MINISTER ON CHEMISTRY.

THE MARQUIS OF SALISBURY on rising was received with loud cheering. He said he had been, though most unworthy—(no, no)—selected to propose the next toast—namely, "Prosperity to the Chemical Society." (Cheers.) It would have been better, he thought, if it had been placed in the hands of someone who knew more about it, but they would not excuse him, so he would proceed with his task, hoping that his distinguished friend Sir Lyon Playfair would supply that knowledge which they might perhaps find lacking in him. What struck him was the importance—the enormous importance—of the science they cultivated to the community as a whole. About a hundred years ago the president of a celebrated tribunal, who was a man of rather advanced opinions, informed Lavoisier that a republic had no need of chemists. (Laughter.) But, though a man of advanced opinions, he was behind the age. (Renewed laughter.) It was the beginning of the time when chemistry more and more, as each decade rolled by, asserted its vital importance to every class and every interest in every community in the world. He thought—if it was possible to pass any criticism upon the learned and able and most interesting discourse to which they had just listened—that the President was a little too apologetic for chemistry in the first half of the century. Annals which contain the names of a Davy and a Faraday they had no reason to be ashamed of. (Hear, hear.) But from the social point of view chemistry undoubtedly has this claim—that it is one of the most powerful agents that have moved the world. There was no need for him to tell what Roger Bacon and Volta had done in the education of the world. It seemed to him that, as an edu-

cational instrument upon the minds of the community, chemistry is one of the most valuable that we possess, because more than any other science it is brought into close communion with pure, real fact. Science is a word that is elastic in our days. We hear many definitions given of it. We hear of the scientific imagination—a most valuable quality that he would be the last to depreciate, only he thought that, like many valuable and concentrated essences, it ought to be indulged in in small quantities. (Laughter.) There is a proportion in its admixture similar to what Falstaff observed in his mixture of bread and sack; one felt a desire for more of the solid nutriment, and less of the stimulating spirit. (Laughter.) Now, chemistry has an enormous amount of the bread, and very little of the sack; it has an enormous amount of solid fact, and very little of the scientific imagination, because the chemist can always be certain of the discoveries that he makes. All that he has got to do, if he is in doubt, is to repeat his experiment, and thus he can make sure of the effect of his discovery. But, of course, when a man discovers what happened fifty millions of years ago it is not so easy to be exactly accurate as to the nature of his discovery, and when a man discovers what is going on fifty billions of miles away, although the discovery may be probable, it certainly has not the character of certainty that attaches to the discovery of a man who can go back to his laboratory and repeat his experiments.

EPIGRAMMATIC DEFINITIONS.

Astronomy, continued the noble Marquis, is largely composed of the science of things as they probably are, geology consists mainly of the science of things that probably were a long time ago—(laughter)—and chemistry is the science of things as they actually are at the present time. (Applause.) The application of a science of that kind to the national mind by constant familiarity with its teaching, by constant knowledge of its achievements, is of the very highest human value. (Hear, hear.) It teaches the mind the immortal difference between guessing and knowing, and the further chemistry goes, and the more it asserts the superiority of its laws and canons in all departments of human thought, so far we shall drive guessing to a distance and be satisfied with knowing what we can know. But his task was to say something about the Chemical Society, and perhaps the most suitable course he could take, following their distinguished chairman, was to take the opposite side from what he took—(laughter)—because that would give at least variety to our proceedings, and would give them an opportunity of testing the superior value of Dr. Russell's remarks. He had dwelt much and dwelt most fairly and justly upon the enormous value, from the material point of view, which chemistry has been to society in the rapid development that has marked the present reign. He was far from disputing its splendid services to the people of all Europe during that period; but he did not think it is for the purpose of securing those services that the Chemical Society exists. (Hear, hear.) His right hon. friend did quite right to go down to Manchester to stir them up and show them their business. But when that impulse has been once given, the self-interest of mankind might be trusted to keep themselves up to the mark, and one may be sure that the material interests of chemistry will not suffer in the cause. There are higher aspects of chemistry which it is the function of societies such as this to remember. It is our duty to keep up its intellectual spirit—to teach that not only those things which are demanded by the interests and industries of this country ought to be cultivated, but also those things which carry us nearer to the essence of truth. (Cheers.) He was not going to carry that pretension too far. We are beings of a mixed character, and our pursuits must bear the trace of the mixture which we give to them. Nor would he imitate the Oxford professor of his youth who said that the one thing he valued in the system of quaternions was that he was perfectly certain that it could never be defiled by any utilitarian application. (Laughter.) Still, it would be observed that the industrial part of chemistry has been that which has received the highest development. Their distinguished President gave a touching and pathetic history of what he might call

THE LOVES AND VICISSITUDES OF BENZENE.

Why has she been lifted up among so many of her compeers in the chemical lists with formulæ quite as imposing and histories quite as difficult to follow? It is because the products that have been drawn from benzene, or at least from coal-tar, have had the good fortune to produce colours which engage the female eye—(laughter and applause)—and, therefore, it is that benzene is famous. (Laughter.) He pleaded for her humbler sisters who have produced no colours, but the study of whom might yet lead up by steps to the discovery of mighty laws and phenomena which will interest the world; and this, in his judgment, is one of the advantages of such a society as that; it tends, by bringing men of different research and pursuits and of different intellectual qualifications together, to prevent the science from becoming, as it has been called, the "mere handmaid of industry," and secures that its higher claims shall receive a perpetual recognition from its votaries. (Cheers.) Their distinguished President had prophesied great things as to the future that awaits us, and he himself believed that there is plenty of room for discovery in the future, and that our fathers have by no means monopolised or exhausted the glories our descendants yet may win; and he had the feeling that, looking at what science is and what science has achieved, it is rather like an Alpine prospect in the early morning, when you see, here and there, a few peaks bathed in light, but separated from each other by depths and chasms of the unknown. (Hear, hear.) That is what we all of us feel who look with very little skill or very superficially at the history of science in our own day. It is evident that chemistry is entering upon a new state, in which it may win splendid victories and produce results of which our forefathers never dreamed. Perhaps it would be best to describe the difference between chemistry now and chemistry as it was when he was a young man by saying that in those days the atom reigned supreme, but that now the atom has been dethroned and the bacillus reigns in its stead. (Laughter.) But that means that we approach, with more and more chance of solving it, the vast problem which separates organic and inorganic nature. Their President had claimed that nature has no longer the monopoly of creating organic substances. That is true, but nature still does many things which none of them could do—(laughter)—and still less could they tell him the reason of the vast difference between organic and inorganic nature. They were all most familiar with the tremendous vegetable poisons which produce the most fearful and astounding effects upon the human frame; but if he asked them to explain their effects they could only show him the formulæ of most vulgar and commonplace elements—(laughter)—which give no explanation whatever of the tremendous powers those poisons have. Agriculturists, under the guidance of Dr. Gilbert and others, compass sea and land in order to bring manure to make our products grow. What is manure? Why, it is an impure form of the carbon and nitrogen in which those products are bathed in the circumambient air every day of their lives. He hoped that the chemistry of the future will tell us why we have to go to Chili for these things—(laughter)—and why we cannot take them from the air around us. He believed that these and other problems are now approaching nearer to their solution than they have ever approached before, because we have seen chemistry grapple more closely with the mysteries that separate organic and inorganic life. He believed that in the future, some fifty years hence it may be, in that or in some other room, the President of the Chemical Society of that day would congratulate the associates on victories, on achievements of which they could not now even dream; and he was quite sure that when that was so the President of the day would attribute no small share of the progress to the labours and existence of the Chemical Society. (Loud cheers.)

Sir LYON PLAYFAIR, in replying to the toast, referred in graceful terms to Lord Salisbury's presence, and to the fact that he is a bit of a scientist himself, although not the first one amongst the nobility, for there were also the illustrious Boyle, "the father of chemistry, and brother of the Earl of Cork," and Cavendish, who discovered the composition of water, and founded the methods of accurate investigations by weight and measure. Proceeding to speak of the progress of

chemistry during the past fifty years, Sir Lyon Playfair humorously alluded to the tendency of the elements to give up all their old traditions. Oxygen used to be a sort of universal lover among the elements, and nitrogen a quiet, confirmed bachelor. But now oxygen was a respectable bigamist that only married two elements at a time; while the indifferent nitrogen, which behaved so meekly in our atmosphere, whenever it got out of it was so polygamous that it generally required three conjugates, and sometimes took five at a time. In fact, Hofmann and Perkin had corrupted altogether the morality of the nitrogen of his youth. (Loud laughter.) He spoke of Curtius and Radenhausen's production of azoimide, and gave several instances to show how greatly our ideas regarding valency have changed since 1841, and although, he said, he had been chaffing, he fully appreciated all the splendid results which had followed from the examination of the valency of the elements. As an original member of the society, he trusted that the next fifty years would produce as great results as those which had been attained since it was founded.

SCIENCE AND INDUSTRY.

The ATTORNEY-GENERAL, in proposing this toast, said he would have been glad if he had been able to associate with the toast the name of one of the five remaining fellows—Sir William Grove—whom he had known from his childhood, and had read his works. He thought he would tell them how science affected eminent lawyers. Many years ago he had to attempt to get a patent for a certain carbolic acid, and he had to go before that eminent chancellor Earl Cairns to argue his case. For many nights he tried to master the subject, and a distinguished chemist, sitting not far from him (Sir H. Roscoe), came to his chambers and gave him an hour and a half on the subject, at the end of which he (Sir Richard Webster) said, "Don't give me any more; I am saturated." (Laughter.) But it did not stop there; he was put in a cab with that chemist, who eagerly kept his eye on him to see if there was any sign of effervescence. (Laughter.) Then he got before Lord Cairns, who listened to him in astonishment, and at the end of twenty minutes said:—"Mr. Webster, your chemist will have his patent; but I hope if anything arises from this, and the matter is carried further, the tribunal will retain its reason till the end of the chapter." (Laughter and applause.) With the toast he coupled the name of Sir H. Roscoe, who, he said, was not done with his researches yet, for during the investigations which had been made with a view to discover the best means of excluding the fog, he was told that a very remarkable collection of microbes had been found, threatening danger to the members of the House of Commons. (Laughter.) He would take them into his confidence and tell them that to the peculiarities of these microbes and the best way to prevent them from entering the House, Sir H. Roscoe was about to devote his personal attention. (Laughter and applause.)

Sir H. ROSCOE was received with cheers when he rose to reply. His speech, which was read, was devoted to showing how science has remodelled almost every condition of life. He claimed that the Chemical Society, and other societies like it, had been of great benefit to industry, and, therefore, to the public.

INTERNATIONAL COMPLIMENTS.

Professor FRANKLAND was received with an exceptionally hearty outburst of applause when he rose to propose the toast standing in his name. He said that the example shown by England in establishing a Chemical Society was followed in France thirty-eight years ago and in Germany twenty-five years ago. If the latter was not actually smuggled into Germany by Hofmann, he at least took the idea with him when he went back to Germany in 1865. Hofmann had been one of the most active members of the society, and they were glad to welcome there that night representatives from both countries, and he was pleased that they had heard from the United States that night. Victor Meyer's name he mentioned amidst loud cheering, and, in addition to the names of those who responded to the toast, he paid a special compliment to the society represented by Dr. Holtz.

M. GAUTIER, replying in French, said when he commenced to study chemistry, thirty years ago, the names of Davy, Dumas, Liebig, and Berzelius were most frequently recurring.

Among novelties were the beautiful works of Williamson on etherification, of Frankland on the organo-metallic radicles. Little did he then expect to have the honour of responding to a toast proposed by the latter in this happy England, and in the presence of the noble lord who had been good enough to join in this *file*. Might he hope to meet them all in Paris when they should celebrate the jubilee of their Chemical Society, which dated from 1858. M. Gautier proceeded to speak of the pacificatory work of science. He had spoken of his feelings towards England on the previous day. He would like to take advantage of the occasion to say how highly they esteemed the work of German *savants*, and how greatly they admired the scientific investigations of Germany's great men. Science, it had been said, had no country. Men of all nations could work together in its service for the common good.

Dr. WILL also replied, in German, thanking Professor Frankland for his friendly speech, and observed that the successes of science were open to the whole world, and without limitation of any kind. No better illustration of the broad and international spirit which animated scientists could be found than in the work of the Chemical Society during the fifty years of its existence. Dr. Holtz and himself had been appointed to represent the German chemical societies, for Professor August Kekulé, president of the Chemische Gesellschaft, and Professor Hofmann, the vice-president, were prevented from being present by unavoidable duties, but they asked him to express their congratulations to the society. He was proud to be able to express the general wish of German chemists that the friendly relations between the societies of the two countries might be maintained, and be fruitful of further benefit to science.

Sir F. ABEL, in proposing the next toast, spoke of the achievements of Victor Meyer; but he had scarcely commenced when the audience spontaneously cheered, most of them upstanding. That, Sir F. Abel said, relieved him of the necessity for using eloquent words, for the cheering showed how they liked the man. He also referred to what the Guilds of London had done for science, coupling with the toast the name of Prime Warden of the Goldsmiths Company in the absence of Sir Andrew Clark.

Professor VICTOR MEYER rose, but it was a minute or two before the cheering allowed him to proceed. He spoke most effectively in his native tongue, and referred feelingly to the great hospitality which had been shown to him; and speaking on behalf of the foreign members of the society in Heidelberg, said that Bunsen and Kopp regretted that they could not be present to personally congratulate the Society. He also alluded gracefully to the fact that Frankland and Roscoe, having studied in Bunsen's laboratory, had returned to England, and richly repaid science generally for what they had gleaned from their Continental studies, Frankland by his research on zinc ethyl—a most important factor in organic synthesis—and Roscoe by his work on vanadium, and by his text-books, which were still used by the German students. Kekulé also owed much to England; it was a fact that the idea of constant valency first occurred to him as he was rolling through the streets of London on an omnibus. Hofmann, in founding the Deutsche Chemische Gesellschaft, modelled it upon the same principles as the English society. He concluded by expressing the wish that the international work of the Chemical Society in London might continue to flourish for ever.

Mr. CARTEIGHE'S toast was the next. He said he did not understand upon what principle he had been selected to propose the toast, but he regarded it as a special honour to the Pharmaceutical Society. He thought that all that had preceded should be taken as reflecting upon the past presidents, and he would confine himself to the present one—Dr. Russell. Again referring to the honour done to him, Mr. Carteighe proceeded to speak of his association with Russell in the Birkbeck Laboratory of University College, where Dr. Russell was assistant to Graham; and he recalled with pride the honour done to him (Mr. Carteighe) when Professor Graham asked him to examine the first known specimen of pure glycerine. He then proceeded to speak of Dr. Russell's work as a teacher and investigator, of the work of the Chemical Society, and reminded the meeting that many of the leading fellows in the past as well as the present were indebted to pharmacy for their early knowledge of the

science. Finally he thanked the meeting for allowing him to propose the toast, asked them to drink it upstanding with three cheers, and complimented Dr. Russell on the manner in which he had conducted the jubilee.

Dr. RUSSELL replied briefly, but apparently with much feeling, and thus ended a celebration which few that have taken part in will forget.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within one month of the date of this journal, give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1890, of opposition to such registration." All communications to be addressed to H. Reader Lack Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

From the "*Trade Marks Journal*," February 25, 1891.

"MEDICATED CATTLE-FOOD ESSENCE," and signature, of circular design; for medicated cattle-food. By T. B. Yeoman, trading as W. G. Harrison & Co., 38 Fox Street, Liverpool. 151,893.

"BUNCH'S SANITARY HAIR LOTION," and picture of girl's head; for a medicated hair preparation. By J. J. Bunch & Co., Sand Pits, Birmingham. 150,243.

Hieroglyphic in circle; for an ointment for human use. By J. T. Trench, 14 Molesworth Street, Dublin. 151,532.

"LOWELL'S INFALLIBLE OINTMENT," and picture, on label; for a medicated ointment. By N. W. Hawksford, trading as A. Lowell, 4 Apsley Terrace, Joslyn Road, Richmond. 152,265.

"PILO-HUTTANUS"; for medicine for darkening the hair. By Jeannette Benck, 77 Churchfield Road, Acton, W. 152,919.

"ALLAHQUAH"; for a medicine. By E. E. Spurling, trading as Allahquah, 187 Marlboro' Road, Chelsea, London. 153,009.

"T. BEADLE," as signature, on scroll; for ointments. By J. Beadle, 16 Falcon Avenue, Darwen. 153,597.

"BLUE BOAR WORKS," and sketch of a boar; for mineral and aerated waters. By Eli Kitchen. Blue Boar Works, 63 Southgate Road, Leicester. 91,700.

"JOHN W. GREEN," as signature; for aerated and mineral waters. By J. W. Green, Luton. 151,010.

"SALUTARIS WATER," and microscopic sketch of drops of pure and impure water; for aerated and mineral waters. By A. W. Haig, C. H. Haig, E. W. Haig, C. E. Haig, and G. A. Haig, trading as the Salutaris Water Company, 236 Fulham Road, London. 151,567.

"SMITH & HAYLOR" as signature, for mineral and aerated waters. By Smith & Haylor, Bygrove Road, High Street, Merton Abbey. 153,001.

"POPPY-LAND BOUQUET," and other wording on shield; for a perfume. By D. Davison, Jetty Street, Cromer. 151,018.

"E. BING & SON (E. B.) CANTERBURY"; for perfumery and toilet articles. By E. Bing & Son, 41 St. George's Street, Canterbury. 151,956.

"ICEINE," and sketch of two eyes, and other wording, on label; for toilet and hair preparations. By C. B. Mackenzie, Central Drug Stores, St. Helens Junction. 152,276.

"CARMELLINA"; for a skin and freckle lotion. By Mary P. Boate, P'ope's Hill House, Cork. 152,807.

ANTIPYRIN VALERIANATE is made by adding to a solution of 30 grains of antipyrin in the minimum quantity of water, 15 drops of valerianic acid, shaking well, and setting aside to allow the salt to crystallise out.

DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Glover, Thomas John, 431 High Street, Cheltenham, chemist and druggist. Trustee: Sidney M. Cornelius, Obeltenham, auctioneer. Date, February 23; filed, February 25; unsecured liabilities, £336/18s. 3d.; estimated net assets, £10/.

	£	s.	d.
Barron, Harveys & Co., London	18	3	4
Edwards & Son, London	19	0	1
Evans, Lescher & Webb, London	22	0	0
Ford, Shapland & Co., London	17	0	0
Ireland, A., Bristol	24	18	2
Langton, Edden, Hicks & Clark, London ..	20	14	2
Maw, S., Son & Thompson, London	16	0	0
Stallard, F. G., Cheltenham	16	10	0
Thompson, H. Ayscough, London	19	0	0
Toogood, W., London	17	1	3
Wright, Layman & Umney, London	15	13	4

(29 under 10/.)

Greeff, Arthur & Hugo, Dunster House, Mincing Lane, E.C., merchants. Partners: Arthur Greeff, 33 Sunderland Road, Forest Hill and Hugo Greeff, 18 Edith Road, Peckham. Date, February 10; filed, February 16; unsecured liabilities, £4,507/18s. 4d.; estimated net assets, £506/14s. 1d. Composition of 5s. in the £, payable by two equal instalments on February 10 and April 20, 1891.

	£	s.	d.
Anhalt & Wagoner, Berlin	550	0	0
Blydenstein, B. W., & Co., London	594	0	0
Callier, Walker & Co., Messina	628	5	11
Dale, William, & Co., London	15	0	10
Dalton & Young, London	42	2	7
Fischer, A. & G., London	149	15	1
Gray, E. F., & Co., London	129	1	5
Gray, Henry, jun., London	40	15	10
Hart, H. B. & E. H., London	428	8	7
Huttenheim, Paul, London	139	15	10
Johnson, Rolls & Co., London	814	2	11
Kent, Arthur, London	21	14	11
Marshall & French, London	250	16	8
May, Malcolm & Co., London	57	17	4
Reynolds & Sellers, London	358	5	10
Sargant, W. T., & Sons, London	59	15	8
Seongal, Gray & Co., London	77	5	5
Smith, C., Son & Gowland, London	32	12	4
White, Blum & McEwen, London	74	18	2

Jack, Richard George, 38 Emperor's Gate, 116 Pimlico Road and 239 King's Road, Chelsea, physician and surgeon. Trustee: Walter Pelton, 28 Oakley Street, Chelsea, wine merchant. Date, February 20; filed, February 23; unsecured liabilities, £1,951/14s. 8d.; estimated net assets, £1,120/; creditors fully secured, 580/.

	£	s.	d.
Barron, Miss, East Molesey	630	0	0
Blake, George, London	24	15	6
Cliffby, London	66	0	0
Felton, W., London	160	0	0
French, S., London	10	0	0
Glover, W., London	20	0	0
Gough & Son, London	24	0	0
Jack, A., Cork	153	0	0
Morgan, G., Sunderland	100	0	0
Shepheards, Messrs., London	60	0	0
Thompson, Ayscough, London	104	3	5
Wynne, Captain, Chatham	500	0	0

Senior, Joseph William, 62 North Street, Ripon, drug store proprietor. Trustee: William Wetherill, Magdalen's Terrace, Ripon, accountant and auctioneer. Date, February 20; filed, February 21; unsecured liabilities, £1,150/; estimated net assets, £20/.

(No amounts given in schedule of creditors.)

Wigan Drug Co. (John Henry Atherton, trading as), 9 Market Street, Wigan, chemist and druggist. Trustee: John Jas. Dix Gleaneross, 31 King Street, Wigan. Date, February 18; filed, February 24; unsecured liabilities, £857/12s. 9d.; estimated net assets, £489/4s. Composition of 10s. in the £, payable 5s. forthwith, and balance by two equal instalments at three and six months from February 17, secured.

	£	s.	d.
Ayrton, Saunders & Co., Liverpool	40	19	4
Bleasdale & Co., Yorkshire	102	3	0
Clay, Dodd & Co., Liverpool	61	10	5
Coleman & Co., Warwick	35	7	6
Crown Perfumery Co., London	13	10	9
Foggatt, W., Tbirsk	30	4	8½
Fry, S. & Co., London	11	13	11
Goldhill, J. A., London	19	15	0
Hockin, Wilson & Co., London	33	11	5
Horrocks & Co., Ashton-under-Lyme	20	2	0
Kemp & Sons, Newcastle	11	12	7
Kenaway & Co., Exeter	10	14	0
Lambert, J. F., London	10	0	0
Macpherson & Co., Manchester	12	0	6
McNair, Manchester	12	2	5
Newhall, Mason & Co., Birmingham	11	4	0
Oates Rushton, Wigan	70	16	11
Powell, F. S., Wigan	20	0	0
Riley, John, Pendleton	14	9	3
Roger & Rennick, Wigan	18	0	0
Sequah, Limited, London	23	2	6
Southall Bros., Birmingham	59	4	3
Wall, Thomas, Wigan	33	13	0
Wigan Corporation, Wigan	10	0	0

Gazette.

PARTNERSHIPS DISSOLVED.

Bostock, J. and W., Oldham, mineral-water manufacturers.

Cooling and Hoe Newark-upon Trent, aerated-water manufacturers.

Dixon, J., Howker, J., and Simpson, R., under the style of the Savon Soap Company, Burnley, liquid soap manufacturers.

Dunkley, Rogers, and Cole, Southborough, chemists and druggists; as far as regards J. F. Cole.

Jevons, W. B., and Chappel, T., under the style of West's Patent Yellow Oil Company.

Smith, R. A., and Gresty, A. E., under the style of R. A. Smith and Co., Moss Side, near Manchester, manufacturing homœopathic chemists.

Watson and Harrison, Sheffield, chemists and druggists.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Male, Robert, Oxtou, late of Birkenhead; **Jenkinson, George William**, Liverpool; and **Male, William Henry**, Oxtou, late of Birkenhead, all trading as Male and Jenkinson, Liverpool, paint, colour, and varnish manufacturers, and oil merchants and importers.

Walklate, John Thomas, Bristol, homœopathic chemist.

ADJUDICATION.

Walklate, John Thomas, Bristol, homœopathic chemist.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Chitney, Edward Jones, Birmingham, late trading as Eskell and Chitney, Birmingham, Cheltenham, Leamington, Coventry, Newcastle-under-Lyne, and Shrewsbury, now trading at Worcester, Kidderminster, Bridgnorth, and Porshore, dentist discharged granted subject to certain conditions.

SCOTCH SEQUESTRATIONS.

M'Connell, A., under the style of A. M'Connell & Co., Glasgow, glass-ware importer and bottle manufacturer, February 27, at 12, Faculty-Hall, Glasgow.

Stirling Brothers, Edinburgh, aerated-water manufacturers, March 2, at 2, Lyon and Turnbull's Rooms, Edinburgh.

ISINGLASS IN DIPHTHERIA.—Dr. Applebe writes to the *Lancet* regarding the value of isinglass when added to nutritive enemata. He also states that it has the same effect as lime-water when added to milk, and patients have a fondness for it.

BANKRUPTCY REPORTS.

Re THOMAS JONES, St. George's Street, E., trading as
JOHN WHEEN & SON, Soapmaker.

THE public examination of this debtor was held before Mr. Registrar Brougham, at the London Bankruptcy Court, on February 19, upon accounts showing total liabilities 20,173*l.*, of which 19,799*l.* are expected to rank against assets valued at 6,018*l.* after deducting preferential claims.

In the course of the examination the debtor stated that in September, 1887, he joined Mr. Wheen in partnership, witness bringing into the business 6,879*l.* at various times, but, with the exception of about 1,000*l.*, it was borrowed money. In April, or May, 1889, the partnership was dissolved, he paying 250*l.* in cash to Mr. Wheen and taking over all the liabilities. Proper books of accounts had been kept, and he looked into the affairs of the firm from time to time to ascertain the financial position. No balance-sheet was prepared at the time of the dissolution. The dissolution was based on a balance-sheet to December, 1888, which Mr. Wheen had declined to sign. There had been differences between them respecting certain items in that balance-sheet. For instance, Mr. Wheen required that an item of 4,400*l.* odd in respect of the "glycerine suspense account" standing in previous balance-sheets should be written off, with the result that a surplus of something like 2,800*l.* was converted into a deficiency of 1,728*l.* The balance-sheet showed over-drafts of 2,000*l.* by his partner. Witness did not at the dissolution take into consideration the fact that his personal liability for borrowed moneys had become a liability of the firm. He continued to trade after the dissolution, and a balance-sheet to the end of 1889 showed a further small deficiency of about 80*l.* Witness did not become aware of his insolvency until last December, when Messrs. Smith & Charles (creditors for 8,600*l.*) withdrew their support. He certainly thought that he was entitled to continue to trade, because, after a fire which occurred in 1887, the firm had materially decreased their liabilities and expenses, and that fact led him to believe that the business would recover. In February, 1889, an unprecedented fall in tallow occurred, which, of course, they were unable to foresee. That affected the selling-price of their soaps, and thus materially decreased the profits. It had been contemplated to convert the business into a limited company, to be styled "The Glycerine Company," but, when Messrs. Smith & Charles withdrew their support to the scheme, the negotiations fell through. Very expensive plant had been put up at the works for the distillation of glycerine by a new process, and it was to the inability to utilise that plant, and to serious trade losses, together with the losses by fire, that the failure was mainly attributable. The public examination was ordered to be concluded.

Re WILLIAM ALGAR EDWARD CLOSE, Charlotte Street,
Landport, Herbalist and Botanist.

THIS debtor attended before Mr. Registrar Renny, at the Portsmouth Bankruptcy Court, on Monday, to undergo his public examination. His liabilities amount to 99*l.* 5*s.* 6*d.*, and his assets are estimated at 27*l.* 9*s.* 4*d.* He commenced business two and a half years ago, and was perfectly solvent last November. He attributed his failure to the proprietor of Beecham's pills bringing an action against him for selling pills which were represented to be his and were not. The costs of the action were 51*l.*

Re GEORGE FERDINAND VON WEISSENFELD, otherwise
SPRINGMÜHL, 97 Great Portland Street and Stoke New-
ington, and late of Paris and elsewhere, Analyst and Con-
sulting Chemist.

MR. REGISTRAR LINKLATER, on Tuesday, at the London Bankruptcy Court, presided at the public examination of this debtor, whose failure has been already reported. The debtor formerly practised as a chemist at Milan, and has recently been engaged by a limited company to promote a patent for the evaporation of liquids. His accounts show gross liabilities 1,689*l.*, of which 639*l.* are expected to rank against assets valued at 360*l.*

Mr. Wildy, Official Receiver, attended for the department, Mr. Duerdin Dutton for creditors, and Mr. Davis for the debtor.

When the case was reached, Mr. Dutton said the debtor had not yet attended a single meeting, and had not disclosed a proper name and address. There was apparently some reason for keeping away. It was proposed to make an application in chambers with respect to the matter, as it was believed there was some attempt to defeat the process of the court.

Mr. Wildy stated that he had evidence as to the service of the proceedings. The receiving order was made on January 16, and he proposed to make an application for an adjudication order.

At this point Mr. Davis entered the court with a letter from his client dated from Paris, and to the effect that the debtor was suffering from inflammation of the eyes.

The Registrar intimated that he was considering whether he should not issue a warrant for the debtor's arrest.

Mr. Davis contended that that would be a harsh and unnecessary proceeding. He asked for an adjournment, stating there would be no difficulty in getting his client's attendance on the next occasion, and also intimated that an appeal was pending to set aside the judgment obtained by the petitioning creditor.

The debtor's letter was handed to the learned registrar, when Mr. Dutton urged that no value should be attached to it, stating that at one meeting a letter was put forward written by the debtor at Cologne, and also pleading ill-health.

After perusing the letter, his honour said he would order an adjournment to enable the Official Receiver to serve a notice on the debtor at the Parisian address by registered post. At the next sitting he would refuse to listen to any excuse that was unsupported by a medical certificate.

Mr. Davis: The debtor is a medical man himself, your honour.

The Registrar replied that he should require a certificate from another medical man, and unless that were forthcoming, or the debtor was in attendance, he would comply with the application and issue a warrant.

The proceedings were then adjourned for a week.

AT THE COUNTER.

A CANTERBURY FIRM report inquiries for "pigsalic acid to clean my brother's buttons," and for "one of them 'ere wampires," under which title Calvert's Vaporiser was meant; country people of that district sounding V's as W's.

"E. L. A." says: "A gentleman called at my place for a bottle of Joe's brandy as the best application for the hair. I had to take a glass of Armbrecht's coca wine before I could solve it. What does it stand for?"

FIRST Drug Clerk: "I had a queer experience last night." Had just closed up the shop, lain down and gone to sleep, when there was the most violent ringing at the night bell." Second Drug Clerk: "Ha, ha, ha! After a postage-stamp, eh?" First Drug Clerk: "No; he wanted——" Second Drug Clerk: "Ho, ho, ho! Wanted to look in the directory, eh? Or may be wanted to know what street it was?" First Drug Clerk: "Nothing of the sort. You might guess all day and not hit it." Second Drug Clerk: "Then what on earth was it?" First Drug Clerk: "He wanted a prescription filled." —*New York Weekly.*

MR. EVANS, Aberystwith, sends us an order sent to him for "Mulsbul Coardfiloil." It is not Welsh, but means emulsified cod-liver oil.

"SCUTCH O'NEILL 1*l.*" is the inscription on an original document sent to us by Mr. C. A. Higgins, of Halifax.

CANADIAN NOTES.

IN WATERLOO COUNTY, ONTARIO, a pharmaceutical association was formed last month. The formation meeting was held at Galt, and Mr. S. Snyder, Waterloo, was elected president, and Mr. R. Ferrah, Galt, has, in the meantime, accepted the secretaryship.

PHARMACY IN MANITOBA.—There is no college of pharmacy in Manitoba, but an endeavour is being made to get the blank filled by arranging with the Medical College to receive the pharmaceutical students. The Pharmaceutical Association do not seek a pharmaceutical department distinct from the medical one, as the lectures in the latter would suffice for present requirements.

ESCAPES.—The premises of Messrs. Evans, Sons & Co. (Limited), at Montreal, narrowly escaped destruction last month. A printing warehouse behind theirs was burned down, and the drug warehouse in front was considerably damaged with water. Messrs. Kerry, Watson & Co.'s drug and spice mills also suffered. Mr. John Lewis, a retail pharmacist in Victoria Square, Montreal, was also threatened in the same way, but on a different day, a large and fierce fire having broken out a few doors west of his pharmacy, but it was stopped before it got his length.

STUDENTS AND THE COUNCIL.—There was a lively time at the Ontario College of Pharmacy on Friday, February 6. It was the last day's meeting of the council, and the action of that body in dismissing Professor Shuttleworth does not please the students. During the forenoon they paraded the corridors and whooped and hooted at the members of the council. The real fun began at noon, when they gathered around the council-chamber, both inside and out, and raised a racket that could be heard a block away. "Bring out Clark" (the president), "Skin Hall," "Soup for Petrie," were some of the cries which enlivened the affair. Finally it grew so warm that the members thought of appealing to the police; but they discovered that the door was barred on the outside, while a crowd of students under the window taunted them to get an exit by that means. In the absence of a fire-escape the councillors didn't accept. At length the students left for dinner, thinking they had the council securely imprisoned; but before they returned the janitor put in an appearance and released the prisoners. This was the last regular meeting of the present council.

NEW COMPANIES.

THE FULHAM POTTERY AND CHEAVIN FILTER COMPANY (LIMITED).—The Fulham Pottery Works, of Fulham, and the business of Mr. George Cheavin, of Boston, proprietor and patentee of Cheavin's water-filter, have been combined into the above company with a capital of 20,000*l.*, in 1*l.* shares, and 6,000*l.* in 5-per cent. mortgage debenture stock. The vendors take 5,800 shares in part payment of the purchase money, the total of which is 13,742*l.* 19*s.* 9*d.*, and 6,200 shares and the debentures are now offered to the public. Mr. William B. Fordham (chairman of W. B. Fordham & Sons, Limited), is chairman of this company, and Mr. G. W. Cheavin, of Boston, with Mr. S. R. Earle, of Eltham, are also named as directors. The Fulham Pottery, which has been established for 200 years, has manufactured the stoneware cases for Cheavin's filters, and it is assumed that the amalgamation of the businesses and their concentration at Fulham will result in increased profits.

ORRIDGE'S SURREY DRUG CO. (LIMITED).—Capital 2,000*l.* in 1*l.* shares. Object: To acquire and carry on the business of chemist and druggist, medicine vendor, &c., now carried on at 149 High Street, Guildford, by Charles E. Orridge. The first subscribers and the number of shares taken by them are as follows:—J. H. Meadows, Haslemere, draper, 1 share; H. Hale, Haslemere, corn merchant, 1 share; C. E. Orridge, Hindhead, Haslemere, drug merchant, 100 shares; W. Braby, Guildford, china and glass merchant, 1 share; J. F. Kitchen, High Street, Guildford, wine merchant,

1 share; Elizabeth Braby, Haslemere, wife of W. Braby, 1 share; Caroline Orridge, Hindhead, Haslemere, wife of C. E. Orridge, 15 shares. The registered office of the company is at 149 High Street, Guildford. Registered without articles of association.

HYDE, DENTON & GLOSSOP MINERAL-WATER MANUFACTURING COMPANY, LIMITED.—Capital 5,000*l.* in 5*l.* shares. Object: to take over and carry on the business of mineral-water manufacturers, hitherto carried on by Robert Yonde at Hyde. The first subscribers, taking one share each, are:—R. Yonde, 29 Water Street, Hyde, Cheshire, agent; J. E. Hornby, 44 Ryecroft, Ashton-under-Lyne, agent; George Thompson, 22 Wellington Road, Eccles, agent; J. Potts, 12 Acre Street, Denton, commission agent; R. Robinson, 17 Milk Street, Hyde, clerk; E. Morris, 8 Reynard Street, Hyde, clerk; Samuel Taylor, 48 George Street, Hyde, clerk. The registered office is at 29 Water Street, Hyde, Cheshire, and the company is registered without articles of association.

Practical Notes and Formula.

TOOTH-SOAP.

HEAT together on a water-bath 15 lbs. of cocoa-nut oil and 5 lbs. of olive oil, and when melted add 5 oz. of Berlin red, 5 oz. of calamus, 2½ oz. of cloves, 1 lb. of sugar, 5 oz. of precipitated chalk, 1 lb. of orris-root (all in fine powder). Heat the mixture to about 82° F., then add 10 lbs. of soda ley (38° Baumé) at the same temperature. When saponification is complete add the following perfume:—

Oil of peppermint	4 oz.
„ star-anise	1 „
„ cloves	2 „
„ cassia	3 drachms

Mix this with the soap while it is in a pasty state, and set aside for a day or two to allow it to set, then cut up the mass into suitable-sized blocks.

VINEGAR OF ROSES.

Cochineal	15 grains
Burnt alum	2½ drachms
Otto of rose	5 drops
Rectified spirit	3 oz.
Acetic acid	1½ „
Caramel	1 drachm
Distilled water to	32 oz.

Rub the cochineal and burnt alum together; mix the liquids, add the powder to it, agitate, set aside for twenty-four hours, and filter.

TANNIN WRITING-INK.

Tannin	15 drachms
Water	17 oz.

Dissolve, and add the following mixture:—

Solution of perchloride of iron (10 per cent.)	1 oz.
Sulphuric acid	12 drops
Water	12½ oz.

Mix, and dissolve in the mixture 5 drachms of deep black dye E.

AROMATIC WATERS.

THE *Western Druggist's* opinion regarding the extemporaneous manufacture of aromatic waters is that the most satisfactory method consists in dropping the ethereal oil on a piece of filtering-paper, rolling up to allow a uniform distribution of the oil, tearing into shreds, and then shaking with boiling water until the paper has been reduced to a pulp, and filtering when cold. The first filtrate may be returned to the filter if not entirely clear.

CAOUTCHOUC CAN BE DISSOLVED

more readily (according to *Pharm. Centralk.*) by adding from 5 to 15 per cent. of oil of eucalyptus to the benzol or carbon bisulphide used; in the latter proportions, the mixture of carbon bisulphide will dissolve nearly 20 per cent. of caoutchouc.



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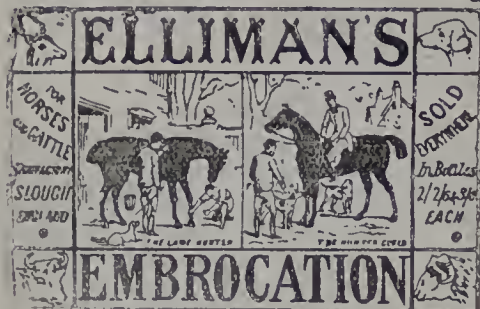
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EDITORIAL NOTES.

A CHEMICAL JUBILEE.

ON February 23, 1841, seventy-seven gentlemen signified their consent to become original members of the Chemical Society of London, and that event has now been signalised, fifty years after, with all the functions which we consider characteristic of such occasions. These we report elsewhere, and need only say of them now that seldom in the annals of science have gatherings of such brilliancy been held, and eloquence from such famous men been heard by chemists. The Prime Minister's speech alone is a mine of scientific epigrams and keen conception of the value of science. But upon that we cannot in the meantime comment. It is the event in the history of the Chemical Society rather than the events of the week which demand attention now. Pharmacists will naturally be sympathetic towards their kinsmen in science, for in a month or two the Society which so largely influences their own affairs will also have completed its half-century of existence. But there is a more tangible claim for sympathy in the fact that the man who more than any other laid the foundation of the Chemical Society was one whom pharmacists in the past delighted to honour. We refer to the late Robert Warington, of the Apothecaries' Hall, the associate of Professor Redwood in editing the British Pharmacopœia. He it was who stirred up the "gentlemen engaged in the practice and pursuit of chemistry" to give their adhesion to his scheme for the encouragement of chemical research, when chemistry was still young and there were few workers in it. His name stands first in the "Obligation Book," and Professor Thomas Graham, the first president of the Society, and one of the most eminent men of the century, was content to be second to him, while such men as Sir W. R. Grove, the eminent jurist and physicist; and

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, FEB. 28, 1891.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—**LONDON, W.**—First-class Business; handsome corner shop; established 50 years; all first-class Dispensing; returns £1,200 yearly; £1,500 required. N.B.—London reference must be furnished as a preliminary.

2.—**LONDON, W.**—First class Dispensing and Retail; very handsome shop; returns about £1,000 yearly; particulars will be furnished privately to gentleman prepared to invest about £1,000 to £1,200 in cash.

3.—**LONDON, N.W.**—Dispensing and Light Retail, with well-fitted shop; returns £700 yearly; profitable business; situate in main road, and capable of further development; price about £600.

4.—**LONDON, N.W.**—Dispensing, Prescribing, and Retail; situate in a main road; returns £500 yearly; well-fitted shop and good stock; good 6-roomed house and garden; price about £250.

5.—**LONDON, N.W.**—Handsomely-fitted shop; capital position; returns £400 yearly (a good nucleus); large house on lease; vendor will accept any reasonable offer; retiring from business.

6.—**LONDON.**—Large business centre; returns £950; good position for pushing trade; old-established Business; full investigation will be permitted; price £700.

7.—**LONDON, E.**—Retail, Dispensing, and Prescribing Business; no heavy trade; established 18 years; single-fronted handsome shop; returns £950; very profitable; 8-roomed house; price £850 cash.

8.—**LONDON, S.E.**—Small Business (branch); returns about £350; well-fitted shop and good stock; rent low; on lease; price about £250.

9.—**SOUTH OF ENGLAND.**—Wholesale and Retail Business; returns between £5,000 and £6,000 yearly; the locum must be a Major man, and prepared to invest about £5,000; good opportunity for two good business men.

10.—**SOUTH COAST.**—Fashionable town; good-class Dispensing Business; returns £700 yearly; well-fitted shop, and good house; price about £500.

11.—**KENT.**—Retail and Dispensing Business; established many years; returns last year £800; profits good; good-sized house; held on lease; rent low; price about £700.

12.—**KENT.**—Fashionable locality; good-class Retail and Dispensing, with Post-office; returns nearly £700 yearly; full prices for Dispensing; handsome double-fronted shop; good house; on lease; price £600.

13.—**DEVON.**—Large town; capital position for select Family Business; returns about £400 yearly; profits large; good house and garden; handsome shop; no immediate opposition; price £350.

14.—**LANCASHIRE.**—Manufacturing town; good nucleus of business, well situated, and offering a capital opportunity for a pushing man; present returns about £7 per week; valuation of stock and fixtures only required.

15.—**JERSEY.**—Small Business, pleasantly situated; no qualification required; returns £200; good 8-roomed house and garden; price about £200.

16.—**LIVERPOOL.**—Very old-established Retail and Dispensing Business, held by vendor many years; returns about £600 yearly; very profitable; large handsome double-fronted shop in good position; good house attached; low rental; about £550 required.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

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SALE BY AUCTION.

TO Chemists, Druggists, and others.—Messrs. Newland & Hunt will offer for Sale by Auction at the Westgate Hotel, Newport, Mon., on Wednesday, March 4, 1891, at 3.30 in the afternoon, all that valuable Shop, Business Premises and Dwelling-house, being Nos. 80 and 81 Commercial Road, Newport, Mon., with the Goodwill of a Chemist and Druggist, which has been successfully carried on for many years, by the late Heary Faulkner, Esq.; also the Three Cottages or Dwelling-houses adjoining, which bring in a weekly rent of 17s.; the situation is one of the most important in the town, and commands a large shipping business.

Further particulars may be had from the Auctioneers, Newport, Mon.

FOR SALE.

FOR sale, price £2,000, commanding house and shop; at one of the best corner positions in central Hull; admirably suitable for Chemist, &c.; will be completed in a few days. Apply, Eckles, jun., Bridge Arches, Argyle Street, Hull.

GLOUCESTERSHIRE.—For sale, in consequence of the death of proprietor, old-established Country Business of 50 years' standing, in the market town of Thornbury; good country connection; fine opening for energetic man with small capital. Address, Geo. Whitfield, Morton, Thornbury, Glos.

TENDER.

LAMBETH VESTRY.

TO CHEMICAL MANUFACTURERS & DEALERS IN CHEMICALS.

THE Vestry of the Parish of Lambeth hereby give notice that they are desirous of contracting for the following articles, viz.:—Pure Liquefied Carbolic Acid, Commercial Liquid Carbolic Acid, Carbolic Powder, Chlorinated Lime, Sulphuric Acid, Sulphur of Commerce.

Specifications and particulars, with forms of tender, can be obtained upon application to the Inspector at the Vestry Hall, Kennington Green, between the hours of 9 and 12 o'clock.

Sealed Tenders, directed to the Vestry, and marked "Tender for Disinfectants," must be delivered at the Vestry Hall, not later than 4 o'clock on Thursday, the 12th March.

The Vestry do not bind themselves to accept the lowest or any tender.

By order,
HENRY J. SMITH,
Clerk to the Vestry.

Vestry Hall, Kennington,
18th February, 1891.

APPRENTICESHIPS.

APPRENTICE Chemist requires well-educated youth as Apprentice; comfortable home; premium required. Apply, "Chemists," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DENTISTRY.—Apprentice (out doors) wanted by a West-end firm of qualified Surgical and Mechanical Dentists; personal supervision. Full particulars on application to Messrs. Carter, Ltd., 131 Edgware Road, London, W.

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BRETT** is prepared to estimate or to value entire stocks as they stand with little or no inconvenience to ordinary business, and has repeatedly done so with entire satisfaction to those adopting this mode.**£800 returns STAFFS.**—Fine position in good business centre; Retail, Prescribing, and large sale of own Specialities: price £650.**£750 returns SURREY.**—Retail and Dispensing; returns increasing: price £700.**CORNWALL.**—Prescribing and Dispensing; returns £350; rent £10; excellent opening for Dentistry; price £200; open to offer.**KENT.**—Returns £700; Retail, Dispensing, and Prescribing; no heavy trade: price £450.**SUSSEX.**—Dispensing and light Retail; returns £530; rent £30, lease: price £450.**WORCESTER.**—Profitable Retail, Prescribing and Dispensing; returns £350; rent £20; price £200.**BUSINESSES FOR DISPOSAL.****CHEMIST'S** and Druggist's Business, with Post Office attached, South-West district of London; lease, goodwill, and stock for Disposal; rent £100 per annum. Further particulars of Messrs. Percy Mason & Co., 29 and 30 King Street, Cheapside, E.C.**SOUTH WALES.**—For immediate disposal, in a sea-side resort Retail and Dispensing at full prices, and no opposition; good house and shop; on lease; rent £16; price about £30 (less than valuation). 120 22, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**WEST & IDLANDS.**—Small Country Light Retail Business, suitable for young man with small capital; good chance of increase; shop well fitted, and good stock; good reasons for disposal; offer or valuation. 105/14, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**TO** be Sold immediately, satisfactory reasons, Prescribing and Retail Business, on leading thoroughfare of Manchester; good house; price nominal; fixtures can be taken or rented; good position for dentist. Apply, Dawson, Messrs. Woolley, Sons & Co., 69 Market Street, Manchester.**IMMEDIATE**—Proprietor having accepted public office; genuine Dispensing and Prescribing Business, 10 miles from London; very profitable; good scope for increase; rent £30 on lease; cash purchase liberally treated with. Apply by letter first, to O. Faraday, Post Office, Bournemouth.**BIRMINGHAM.** Tenders wanted for Retail Chemist's and Druggist's Business; good going concern; long lease; busy thoroughfare; tenders to be sent in by March 10 next. For further particulars apply C. C. Smith, Son & Richards, Chartered Accountants, 57 Corporation Street, Birmingham.**FOR** disposal, in an improving suburb of a good town, a genuine little Business; to a young man of energy such an opportunity seldom offers; plenty of scope for development; no opposition near. Apply, in first place, to M. care of Messrs. Barron Harveys & Co., Giltspur Street, London. (No agents.)**A GENUINE** Chemist's Business, with Dental practice, for disposal, situated on main road in an improving neighbourhood; nothing of the kind within a mile and half; convenient modern built house; rent £25 per annum; price for lease, goodwill, fixtures, and stock only £60 Address, E. S. R. 34 Edinburgh Road Reading.**TO DOCTORS**—A splendid opportunity now occurs for a qualified man to acquire a Chemist's branch, where he could carry on dispensary work with every possible chance of success; six-roomed house, side door, outside lamp; rent only £35, lease; nicely-fitted shop, and stocked; price £50. 31 Cottenham Road, Holloway.**£3,000 RETURNS.**—General Mixed Country Business (no oils or colours) in a market town in the West of England; good profits; easily worked; large house; satisfactory reasons for selling; price about £1,600; fullest investigation courted. "Alpha," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street E.C.**PRESCRIBING** and Light Retail, in busy Birmingham suburb; returns £400, fully half profit, good prices, no patents; excellent house; rare opening for a pushing man, as vendor away half the day; with whole attention would immensely improve; price £300; vendor entering medical profession. "Medicus," Wyleys, Coventry.**UNOPPOSED** genuine Prescribing and Retail; no oils or colours; nice double-fronted shop, good house, yard, side entrance; opposite two stations; receipts nearly £300; very profitable; everything at full prices, a good Prescriber with limited capital would find this a genuine investment; income very low. Pearson, Caroline Street, Cardiff.**LANCASHIRE.**—On sale on most advantageous terms, Retail, Dispensing, and Prescribing Business; handsomely-fitted shop; good house; good position in main street; satisfactory reasons for selling; price, valuation of stock and fixtures; splendid opportunity for pushing man desirous of commencing. Address, "Chemist," 60 Churen Street, Preston.**LINCOLNSHIRE.**—Old-established Business; best position and premises in the town; valuable Proprietorship; nice shop and fixtures; returns £600, easily increased by pushing man; situated 3 miles from station; rent £30 on lease price £400; one speciality worth the purchase. Apply to "Enquiry," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**Messrs. CROCKER & CO.**Trade Valuers. Transfer Agents, and Accountants,
15 WALBROOK, E.C.**LANCASHIRE** (Sensile).—Good class Retail and Dispensing; returns £520; price, valuation of stock and fixtures.**MANCHESTER.**—Light Retail and Dispensing; returns £400; price £220; very few patents sold; strongly recommended.**WEST OF ENGLAND** (fashionable health resort).—Old-established Retail and Dispensing; returns £1,200; price £1,200.**SURREY.**—Light Retail and Dispensing; returns £800; price £650; good house; handsome Pharmacy; agency pays rent.**KEVT.**—Good class Family and Dispensing; returns £850; price £700; long lease at a low rent; good house.**LONDON, N.**—Retail and Prescribing, in busy part; returns £9 weekly; very profitable; price £350.**LONDON.**—Partner wanted in a Manufacturing Business doing with Chemists, Dry-alterers, &c.; capital required about £1,000; an energetic man fond of travelling would find this an excellent opportunity for profitable investment of time and capital.**NO CHARGE TO PURCHASERS**
VALUATIONS A SPECIALITY. TERMS ON APPLICATION.**BUSINESSES FOR DISPOSAL—Continued.****IN** consequence of the death of the proprietor, an old established Chemist's Business is to be disposed of in Exeter; situated in a main thoroughfare; rent low; double-fronted shop, with side entrance. Apply, Evans, Oadd & Co., Exeter.**LONDON, N.**—Retail, Dispensing and Prescribing; established 12 years. In very populous locality; corner shop in main thoroughfare opposite railway station; large house, which could be let as a private residence; selling through ill-health of proprietor; an exceptional opportunity for a pushing man with small capital. 116/13, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**BUSINESSES WANTED.****WANTED**, small Country Retail returning about £500, where there is a good opening for a Dentist. Apply, in strict confidence, to M. M., 29 Sigdon Road, Hackney, London, N.**WANTED**, a Genuine Chemist's Business, returning from £500 to £600; profitable and capable of extension; London suburbs or business town in Devonshire; Post-office attached desirable; good shop and house, side entrance preferred. Full particulars, in confidence, as to price, rent, and returns to R. S., Messrs. Wright, Layman, & Unney, 50 Southwark Street, S.E.**SITUATIONS OPEN.**

3s. 6d. for fifty words; 6d. for every 10 words beyond.

QUALIFIED man wanted; state salary, references, &c. John V. Webster, West Bromwich.**WANTED**, an outdoor Junior Assistant. Apply, stating usual particulars, to E. Davis, 29 Commercial Street, Newport, Mon.**BATHE**, 292 High Road, Chiswick (Turham Green Station), requires an Assistant about 24; write particular of experience or call.**WANTED** for China, an Assistant with Minor qualification; Scotchman preferred. Apply, "China," 30 St. Mary Axe, London, E.C.**WANTED**, an Assistant, about 23 or 24 years old, with Minor qualification. Apply, with full particulars, to Glalayer & Kemp, Brighton.**CHARGE** of Pill-massing and Canning Room. Apply, stating experience, age, height, and salary required, Wand's Pill Factory, Leicester.**IMMEDIATELY.**—Loam-tenens to manage Country business for a short time. Full particulars, Geo. Whitfield, Morton, Thornbury R.S.O., Glos.**MANAGER**; qualified; for mixed retail trade in a city in West of England. Address, H. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**JUNIOR** Invoice Clerk wanted, with experience in invoice and general office work of Wholesale Drug trade. Apply, by letter only, W. care of Wyleys & Co. Coventry.**WANTED**, Assistant for good class country trade; must be a good Dispenser; abstainer; send photo, and state salary required. A. Upson, Chemist, Maidenhead, Berks.**ASSISTANT** wanted immediately in Mixed business, also some experience in Travelling. Address, 119 25, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**WANTED**, qualified Assistant about 23; state age, height, salary required, and references, enclosing photo, to W. Baxter (late Downman) 150 High Street, Southampton.**A YOUNG** man, of pushing habits and good address, to take up sale of proprietary with Druggists and Grocers doing large Mixed Retail and Wholesale. Wand, Chemist, Leicester.**IMPROVER** wanted by a Pharmaceutical Chemist, where there is every opportunity of learning the business. Apply, with usual particulars to R. B. Sandilands, Leicester, Oxon.**QUALIFIED** Branch Manager; Prescribe and Extract; unexceptionable references; state salary required. "Alpha," care of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A GOOD JUNIOR as Improver as soon as possible: one accustomed to general business with Dispensing, Prescribing, &c. Apply, with photo if convenient, to R. S. How, Chemist and Dentist, Oxford.

WHOLESALE.—Good Junior hand wanted for Wet Counter at once: must have had some previous experience. Apply, stating age, experience, and references, to Ferris & Co., Union Street, Bristol.

WANTED, qualified Assistant for a Pharmaceutical Chemist, Hobart, Tasmania. Write, stating qualifications and all particulars, to H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR Japan, immediately, qualified Assistant, about 25; first-class experience and references indispensable; liberal terms. By letter only, Dakin Brothers, 2 and 3 Creechurch Lane, Leadenhall Street.

WANTED, Assistant for good Mixed Business (indoors); no Sunday duty. Apply, with particulars, stating salary, &c. (applications not answered in three days are not entertained), to C. Birkett, Windermere.

A JUNIOR Assistant for Mixed Business (outdoors); no Sunday duty; if studying, part-time could be arranged (photo to be returned). Age, height, salary, &c., to Townsend, Long Sutton, Lincolnshire.

WANTED, shortly, a Junior in a good-class Dispensing business; two others kept; must have had some experience in Dispensing. Apply, with usual particulars, to Shrubsole & Son, Town Hall Square, Chester.

IMPROVER wanted at once; Mixed business in large village; comfortable home; no Sunday work; half-day for study in lieu of salary not objected to. Full particulars to Wm. G. Skoulding, Shipdham, Norfolk.

JUNIOR or Improver wanted immediately, in a General and Dispensing Business. Apply, stating age, height, salary required, references, &c. (send photo, to be returned), to Youngman, Pharmaceutical Chemist, Bury St. Edmunds.

WANTED an Assistant, qualified for a good class Dispensing and Retail; indoors. Apply, stating age, height, salary and references, to J. Munday, Chemist, 1 High Street, Cardiff.

WANTED, Junior Assistant, well up in Dispensing. Apply, stating age, height, salary required, and references, to A. Dunston, Chemist, Farnham. Wesleyan preferred; non-smoker, and total abstainer.

JUNIOR Assistant, of good address, in first-class Retail and Dispensing Business; part time allowed for study. State full particulars, or apply personally, to Messrs Christmas & Co., 818 Holloway Road, N.

WHOLESALE.—Assistant wanted for Wet Counter; must know the business thoroughly and be well recommended. Apply, with full particulars as to age, experience, and salary required, to John Mackay & Co., Canning Street, Edinburgh.

A GENTLEMANLY competent Assistant; must have had good experience in first-class retail and dispensing. Apply, stating age, qualifications, references, and salary required, to Brady & Martin, 29 Mosley Street, Newcastle-on-Tyne.

JUNIOR or Improver at once, in good-class business; no Sunday or Bank holiday duty; comfortable home. State age, height, salary, reference, and when at liberty, enclosing photo if convenient, to "Chemist," 304 London Road, Thornton Heath, S.E.

ASSISTANT (indoors, without board), for Retail Counter; good references indispensable. Personal interview, or send photo (to be returned), stating age, salary required, and full particulars, Wm. Fox & Sons, 109 and 111 Bethnal Green Road, London.

WANTED, a qualified Assistant (indoors) for Dispensing and Light Retail business; salary £42 per annum; comfortable home; good character from last employer indispensable. Apply, with full particulars, to R. Feaver Clarke, 21 High Street, Gravesend.

WANTED, immediately, a thoroughly trustworthy qualified Assistant to take principal charge of a light Dispensing, Retail, good class; single; indoors preferred; good character indispensable. Apply, giving reference, to J. Barge, Chemist, 68 Old Town Street, Plymouth.

WANTED, at once, qualified Assistant; one accustomed to quick business; abstainer preferred; a permanency to a steady but active man; must be able to take sole charge of Dispensing, sale of poisons, &c.; preference given to a young man. Incc, Dudley, Worcs.

WANTED, at once, an Assistant (indoors) for two or three months; one accustomed to a good-class Agricultural trade (with a knowledge of the Seed trade preferred); applicants will please give usual particulars and enclose carte, to be returned. Address, H. Woodward, Hoxeter.

WANTED, at once, Assistant in Chemical and Physical warehouse; must be good writer; preference given to one with knowledge of apparatus; good encouragement to suitable person; reply, stating wages expected, "Apparatus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AT once, a qualified Assistant; indoors; aged about 24; middle height; accustomed to superior class of business; commencing salary £60; only one intending a permanency would be treated with. Apply personally, mornings 10 to 12, evenings 6 to 8, White & Son, Park Terrace, Regent's Park.

TRAVELLER.—Gentleman with experience, energy, and tact required to represent a firm of provincial Wholesale Druggists; one having a connection in the Midlands, North of England, and South Wales preferred; unexceptional references required. A. B. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATELY (indoors), a qualified experienced Senior Assistant; age 30 to 35; steady and reliable; good Prescriber; abstainer preferred; short hours; no Sunday duty. Apply, stating age, height, and salary required, with photo and references, A. B., Messrs. Evans, Lesolier & Webb, 60 Bartholomew Close, London, E.C.

ASSISTANT, trustworthy and reliable, having had good experience, able to prescribe and dispense; one seeking permanency preferred; qualification not necessary if experienced (indoors); state age, height, and salary required, photo if convenient. Apply to C. G. Brendner, Chemist, Elizabeth Street, Cheetham, Manchester.

JUNIOR, able to speak Welsh, to manage a small branch; must have good character. Apply, Hughes, Chemist, Bethesda.

MANAGER, qualified, to manage branch shop. Apply, N. Y. Z., Crooke & Abraham, Birmingham.

AN Assistant, chiefly for Dispensing; Qualified, and accustomed to best class of trade. Davies & John, Chemists, Bath.

JUNIOR for Morecambe. Address, giving age, experience, references, and salary, to S. Parker, 360 Leeds Road, Bradford.

WANTED, Manager (registered) for country business in Lincolnshire. State age, salary, and references to Buckland, 3 Claremont Road, Bristol.

WANTED, a qualified Assistant, about 24 years of age, in a good-class Retail and Dispensing business. Apply to J. Burton, Chemist, Llandudno.

JUNIOR (indoors) for brisk Cash business; no Sunday duty. Apply, stating experience and salary expected, to J. H. Lewis, 22 & 24 Great Portland Street, W.

PART-TIME Assistant; indoors; good accurate Dispenser; Minor preferred. Apply, with full particulars by letter, Ph. C., 130 High Street, Notting Hill, W.

JUNIOR Assistant, active and obliging, with good references; comfortable home offered. Apply to Chas. H. Ridley, Chemist, Barking. Applicants not answered in 3 days are declined.

WANTED, Junior or Improver in Light Dispensing business; one with knowledge of Homeopathy preferred, but not essential. Apply, with usual particulars, to J. Tirrell, Market Square, H.-lev.

AT once; Junior Assistant; one used to Country trade preferred. Apply, with particulars of previous experience, age, height, salary required, &c., and enclose carte, Smart, Pharmaceutical Chemist, Steyning.

AN Assistant, well up in Dispensing and accustomed to good class business. If writing, send usual particulars and photograph to J. W. Taplin, 4 Fortune Gate Terrace, Harlesden, London, N.W.

ASSISTANT (indoor), not under 23, with experience of brisk Counter trade; no Sunday duty. Apply, stating usual particulars and salary required, to N., Messrs. Hodgkinson & Co., 101 Whitecross street, E.C.

A QUALIFIED Assistant as Senior in a suburban business; two kept indoors; salary to commence £55. Apply, giving references, age, and experience, "Ferrum," c/o Messrs. Evans, Sons & Co., Hanover Street, Liverpool.

WANTED, Manager, qualified, single, aged 25 to 30 good references photo height, and usual particulars, for first-class Dispensing business in Liverpool suburbs. R. T. Richardson, Sefton Park Pharmacy, Ullet Road, Liverpool.

AN energetic Assistant (qualified) by March 14; indoors; accustomed to a first-class business. Apply, stating age, height, and salary required, to John Bailey, 5 Pond Street, Hampstead, N.W. Applications not answered in 3 days declined.

FREDK GIBSON, Gooch Street, Birmingham, requires an Assistant, about 21 years of age, in a light, good General Retail; 2 assistants and porter kept; comfortable home, and time allowed for study; send carte and every necessary particular.

A GOOD man to work up a modern business in large manufacturing town; must have thoroughly satisfactory references and knowledge of Store trade. State salary and particulars, to "Replica," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER; qualified; age about 35; country trade; experience; can extract; a first-class opportunity for one with a small capital to invest, with a view to succeed; established 50 years; no opposition. Apply, K., Southall Bros. & Barclay, Birmingham. Good Junior also wanted, same address.

AT once; good and reliable Junior (qualified preferred), for Light Retail and Dispensing; no hard work; must take interest in shop and proprietaries; references must bear investigation. Apply, with usual particulars, salary (indoors), and photo, to "Chemist and Dentist," 70 Oxtou Road, Birkenhead.

ASSISTANT, with Minor qualification, for a high-class Dispensing business; must be gentlemanly and obliging, and a quick, reliable Dispenser, with good experience; comfortable home. Apply, stating age, height, references, and salary required, enclosing photo, to Frederick March, Westgate-on-Sea.

A QUALIFIED Assistant, indoors, accustomed to first-class Dispensing and select Retail; trustworthy, gentlemanly, with good references; a liberal salary to a competent man taking an interest in the business. Apply, stating age, height, salary, and enclosing photo to G. T. Turner, Chemist, Clifton, Bristol.

SOUTH OF ENGLAND.—Wanted, a competent Assistant, age not over 30, suitable for a first-class Retail and Dispensing, with good appearance and address; outdoors. Send particulars, age, height, reference, and salary, with photo, to Woollett, Chemist, Taunton, Somerset. Excellent apartments at 16s. or upwards per week. No Sunday duty.

EXPERIENCED Junior Assistant, not under 21, required the end of March or earlier; indoors; single-handed; accustomed to good-class Retail and Dispensing; good personal character indispensable. Apply, with references and photo (to be returned), stating age, height, and salary required, to R. Hayton Davis, Pharmacist, High Harrogate.

DR SARGENT, Station Road, Brixton Railway Station, London, requires an outdoor Assistant able to Dispense and attend small Chemist's Retail; a slight knowledge of Dentistry desirable; apply, stating salary required and one or two references, either personally or by letter; business hours 8 to 10, Sundays 6 to 10 o'clock; holiday once a month.

SEASIDE.—Immediately, two Assistants, senior and Junior, the former qualified (indoors), permanency, for first-class Dispensing and Light Retail Business (three kept); must have good references. Apply, stating full particulars, age, height, references and salary required (enclosing carte, to be returned), E. Mitchell-Smith, Chemist, Weymouth.

WANTED, immediately, an experienced qualified gentleman aged 20 to 30, must be steady, willing and obliging, and capable of taking charge of a good Middle-class Prescribing and General Retail Business; applicants to state age, experience, references, and salary required (indoor); comfortable home. Apply to Mr. Hughes, 19 Broad Street, Blaenavon, Mon.

LABORATORY.—Old-established firm of London Druggists have a vacancy for a young Chemist who has had a good scientific education, followed by a few years' experience of the manufacture of extracts, small chemicals, and other P.B. preparations, as well as of the purification of heavy chemicals, &c.; liberal terms to a suitable applicant. Address, stating age, experience, and salary required, 11, Lynwood Villa, Beaconsfield Road, New Southgate.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

JUNIOR; aged 22; experienced. S. H. K., 48 Waldemar Avenue, Fulham.

ASSISTANT; 27; time for study. Andrews, 149 Marylebone Road, London, N.W.

AS IMPROVER (19); 4 years' experience. Elwell, 96 St James's Road, Southsea.

JUNIOR; 6 years' experience; Bradford district preferred. "Cortex," 24 Charles Street, Bradford.

AS Manager (40); married; A1 references. State full particulars to T., 267 Kentish Town Road, N.W.

LOCUM-TENENS, or Assistant; experienced; disengaged "Extractor," 4 Milston Lane, London, N.E.

AS Manager or Assistant, with a view to purchase; good reference. "Spero," 1 Parson's Mead, West Croydon.

MANAGER or Assistant; married; qualified; aged 33; highest references. H., 23 Tulse Hill, Brixton.

OUTDOORS.—Manager; qualified; 29; disengaged April 1st. Dalwood, 75 Aldersgate Street, London.

ASSISTANT (23) seeks situation (outdoors) near Newcastle-on-Tyne. "Pharmacy," 59 Delaval Terrace, Blyth.

ADVERTISER (26) requires situation; Wholesale preferred. A. B., 38 Shrubland Grove, Queen's Road, Dalston.

LABORATORY man; 26 years' experience. "Tarax," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS or Manager; aged 37; qualified; abstainer. "Chemicus," 3 Wolham Place, Russell Square, W.

ASSISTANT; time for study; Manchester or district preferred; 23; abstainer. J. Raue, 19 High Street, Bridlington.

ASSISTANT; 25; tall; experienced; excellent references; time for reading; West-end. 14 Market Place, Upton Park, E.

PART TIME; experienced; London or suburbs; highest references. "Lavender," 7 Crossfield Road, Belsize Park, N.W.

MANAGER or Dispenser; seeking permanency; Midlands preferred; disengaged. E. E. Hanley, 20 Blucher Street, Birmingham.

JUNIOR; 41 years' experience; outdoors; London; good Dispenser; rendering for Minor. M., 4 Thorndale Road, Shepherd's Bush, W.

JUNIOR; aged 19; 4 years' experience; good references; London preferred; salary £25. Goodwin, 32 Station Road, Shepherd's Bush, London.

NORTH or Midland.—Manager Branch (qualified), or good Assistantship; 23; 9 years'; disengaged. Bates, Allenheads, Allendale, Northumberland.

JUNIOR; aged 19; 3 years' experience at watering-place on West Coast; can talk Welsh; disengaged March 20. Hughes, Glan-y-trach, Barmouth.

WHOLESALE; Wet or Dry Counter; situation in above; experienced in Wholesale and Retail; good references. "Wholesale," G.P.O., Hull, Yorks.

COUNTRY Traveller, with connection amongst Mineral-water Makers, Wholesale Confectioners, &c., wants engagement. Address, "Soluble," 111 Louthair Road, N.

ASSISTANT, Minor qualification, desires situation; aged 23; height 5 ft. 7 in.; 6½ years' experience. 115/32, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER; aged 38; single; qualified; Dispenser, Prescriber, Extractor; well up in the general routine of country trade. "Minor," 6 Charlotte Street, Fitzroy Square, London.

HUNGARIAN certificated Pharmaceutical Chemist, aged 28, desires situation in England or Colonies by 1st April; speaks tolerably English, perfectly German. Lewis Erdelyi, Trencsén, Hungary.

PACKER or general hand in warehouse by a young man aged 24; now disengaged; 11 years' character in the trade (London). Address, W. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Traveller, to represent a good firm of Chemists or Druggists' Sundries, for Wales, &c.; active; of good business habits, and the highest references. Apply to Edwards, Hyfrydie, Penrhyndaronrath, Wales.

LOCUM-TENENS; disengaged; qualified. "Esculap," 32 Laurel Grove, Peuge.

TOWN or Country Mixed. As Assistant; 32. "Minor," 154 Great Dover Street, S.E.

AS Junior; aged 20; 4½ years' experience; London preferred. H. B. S., 12 High Street, Croydon.

LOCUM-TENENS; qualified; good references; varied experience. "Locum," Trinity Square, Maidhead.

MANAGER or Temporary; qualified; references (45). Williams, Chemist, 70 Ledbury Road, Bayswater, W.

JUNIOR; in London; aged 21; 6 years' experience; good references F. H. H., 2 Bankfield Terrace, Longley, Huddersfield.

OUTDOORS; salary £2; some time out of business; able to work; in town. "Chemist," 63 Kennington Road, London, S.E.

BRANCH Manager; 9 years' experience; qualified; single; disengaged April 5. L., 21 Bradshaw Street, Moss Side, Manchester.

ASSISTANT; steady employer; town and country experience; disengaged about March 7. "Work," c/o Dixon, Chemist, Ash, Dover.

MANAGER, registered, seeks re-engagement to a Chemist; Mixed, Trade branch preferred. H. B., 8 Kearsley Road, Highfield Sheffield.

AS Assistant, with view to taking share in Wholesale or Retail; well up in Drug trade; aged 25; single. Arthur Newton, Clarence Road, Stanleybridge.

TEMPORARY; town and country experience; reliable; undeniable references; registered; now disengaged. "Chemist," 13 Southampton Street, London, N.

MANAGER.—Energetic business man; disengaged end of March; near London preferred; married. Address, "Yeldnil," Bridge Pharmacy, Harrow.

ASSISTANT; part-time; in or near London; good references Address, "Juno," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EVENING Engagement in good Dispensing business; experienced. Extractor; Hall qualification. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT, qualified, desires engagement, outdoors, with view to purchase, in small business; Yorkshire or Lancashire preferred. "Chemicus," 1 Albemarle Road, Beckenham.

AS Part-time Assistant in first-class London house; good all-round man; excellent testimonials; Minor. Address, "Forceps," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; Minor qualification; in first-class dispensing and select retail; West-end preferred; aged 22; height 5 feet 11 inches; Apply, W. R. S., care of G. Coverdale, Pharmaceutical Chemist, York.

WHOLESALE Drug Trade.—Assistant, 27, 11 years' experience Retail and Wholesale, would like to hear of a vacancy in good house of business. S. M., The Chemist's, Wandsworth Bridge Road, Fulham.

MANAGER; qualified; experienced; good Tooth-extractor, Prescriber and Counterman; permanent; aged 30; married, no encumbrance. Send particulars to N. Y. Z., 3 Albert Road, Walthamstow.

ADVERTISER, who calls upon all Chemists on the South Coast, is open to accept engagement, on commission, from a Drug or Sundries house. "Drugs," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

GENTLEMAN, 11 years' experience (3 in steam laboratory), good Tooth-extractor, who has been travelling for last 2 years, seeks engagement in Wholesale or Retail as Traveller, Storekeeper, Bookkeeper, or any position of trust; good references; aged 29. S., Percyville, St. John's Road, Bedminster, Bristol.

MISCELLANEOUS.

FOR SALE, the Recipe for making Orseille Persio (Cudhear), the well-known dye, in a few hours, in large quantities at a moderate cost. For terms, &c., address "A. 766," care of Rudolf Mosse, Zurich.

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TULLY'S method of preparation is without equal; send for particulars. Knotty Points in Latin Grammar, 1s. 6d.; Caesar Simplified, 1s.; Metric System Simplified, 1s.; How to Write an Essay, 3d.; Equations Simplified, 1s.; Student's Herbarium, 100 specimens, 7s. 6d., post free. Mr. J. Tully (Hill's Prizeman), Chemist, Hastings.

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Organic Materia Medica. Concisely tabulated, thus saving much time and laborious reading. In stiff boards, cloth gilt, post free, 1s. 7d. Notes on Dispensing. 3rd Edition. Post free, 1s. 1d. Botanical Companion: How to Describe a Plant, &c. Post free, 7d. Doses, Sp. Gravities, and Percentages of B.P. 1885 and 1890. Vest-pocket edition. Post free, 6d. Sold by H. KIMPTON, 27 High Holborn. All orders by post should be addressed to the Publisher.

GOWER, 4 Lancing Road, Ealing, London (late of Hackney).

Dr. Owen Rees, the pathologist; Arthur Aikin, a geologist of note and competent all-round scientist; Dr. Thomas Clark, originator of the soap-test for hardness of water; Sir Lyon Playfair, now more attached to politics than to the petroleum industry; Dr. W. Herapath, who afterwards did so much for chemico-microscopy; Dr. Longstaff, the founder of the medal of the Society; Dr. John Stenhouse, who at that time was engaged in work not unlike the pharmaceutical research of to-day; Professor Thomas Thomson, of Glasgow, one of the founders of modern chemistry; Dr. George Fownes, a name still dear to students of chemistry, afterwards the first chemistry professor of the Pharmaceutical Society; Professor W. T. Brande, of the Mint; Richard Phillips, the chemical adviser of the Government, who had much to do with the introduction of methylated spirit; Warren de la Rue, and many others signed the first page of the "Obligation Book." But, strange to say, we do not find there the name of the most brilliant scientist at that time—Michael Faraday, whose memory has been so highly honoured by the Society. It was not until 1842 that he gave his adhesion to the Society, and beside his name on the book we find J. H. Gilbert, and following them were Jonathan Pereira, A. Hofmann, Benjamin C. Brodie, and Andrew Douglas MacLagan. Amongst the founders were fourteen medical graduates, and in the earlier years of the Society we find that that profession contributed largely to the active work of the Society—a circumstance due to the fact that the study of medicine was at that time the highway to chemistry, and many whom we now rank as chemical technologists were proud to add M.D. to their signatres. Chemical technology as a special branch of knowledge had scarcely been formulated—indeed, chemistry itself had not long emerged from the shadow of phlogiston and kindred theories. The new society was to foster the new chemistry, and there are few of those who took part in its formation who have not left a record worthy of their enterprise. But few remain, the only names we now find on the records being Mr. William Blythe, of Accrington; Mr. Charles Heisch, of Mark Lane, E.C.; Mr. F. R. Hughes, of Bo'ness; Dr. Longstaff and Sir Lyon Playfair; Sir W. Grove not being a fellow now. The oldest pharmaceutical member now living is Mr. Lloyd Bullock, who was elected in December, 1812, the late Mr. J. F. Macfarlan, of Edinburgh, having been elected the same day; Mr. Jacob Bell was elected in March, 1843. Since those early days pharmacy has given the Society many members and officers, Dr. Redwood especially having rendered it great assistance, and pharmacists may be said to have contriuted a fair share of the strictly scientific work. The meetings were at first held in the rooms of the Society of Arts; after which the Society migrated to Cavendish Square, and finally obtained, by the favour of the Government, in 1857, a permanent abode in Burlington House. We need not follow the history of the Society further than to say that, in 1848, application was made to the Queen for a charter, which was granted, the Society then consisting of less than 300 members; its membership is now between 2,000 and 3,000.

If there is any fault to be found with this Society, it is that its objects are somewhat selfish. The charter is a mere elaboration of the original resolution, which contemplated the promotion of chemistry "by the reading, discussion, and subsequent publication of original communications." There is no provision here for the spread of chemical knowledge by fostering education, and, as a matter of fact, the Society has done nothing in this direction during its long existence. Its objects were conceived at a time when the popularisation of science was only thought of in the shape of occasional lectures to select audiences. University

colleges, evening science classes, and the wants of a nation in regard to improved education were then but dimly shadowed on Time's horizon. Even the professional position of chemists was unthought of by the founders, who professed simply to meet together to read and discuss, and subsequently to publish, communications on chemical subjects. Now that the Society is a national, and not a merely metropolitan, one, it has far outgrown the narrow limits laid down by its founders. Scarcely one in twenty of its members takes an active part in its work, even by attending the meetings. Their interest in it begins with the payment of the annual dues, and ends with receiving its excellent journal, while its fellowship has become a titular distinction, which carries with it commercial or professional value. This is one thing that the Society certainly has done: it has gathered round it those who find it advantageous to be connected with such an institution. Although this was not contemplated by the founders, it is the circumstance which has made the Society a rich body. When chemistry was young the self-centered policy of the Society was suitable enough for concentrating the forces of the times. Now that the science is universally taught and applied, the Society has proved inadequate for the aspirations of its followers; hence have arisen the Institute of Chemistry, the Society of Chemical Industry, the Society of Public Analysts, and the Chemical Section of the British Association, each of which occupies a position complementary to the Chemical Society, yet without weakening it numerically. It is fair to say that it has failed exactly so far as these other bodies have succeeded; but the greatest failure we consider to be is its isolated position in regard to the encouragement of scientific education. A few scholarships for advanced students would be the best memorials of the jubilee; but, before these could be instituted, some amendment of the charter might be required, unless the little-used, but fairly bulky, Research Fund were drawn upon.

The success of the Society lies in the influence it has exerted upon practitioners of chemistry. It has made a British school of chemists; in its earlier days it attracted communications from eminent foreign chemists, and when those educated in other countries have settled in England it has secured their co-operation. To treat of the communications which have been made to it would be to write half-a-century's history of chemistry. The foundations of our text-books are in its volumes of memoirs and transactions. What strikes one as the most characteristic feature of the earlier communications is that they all deal with knowledge snatched from the mass of empiricism which Graham and his contemporaries found themselves heirs to; yet with much that we now regard as elementary or commonplace there are reports of researches upon which we have made little advance since. It is astounding indeed how much these earlier members did when we consider the meagreness of their instrumental resources, and the single-handedness of their work. There was much to be learnt regarding the science, and this was the incentive which brought these men together. The time was most opportune for mutual assistance and encouragement, and the result has justified the means, for up till the present time the Chemical Society has been the medium through which the most important chemical discoveries in England have been given to the world. Liebig, Bunsen, and Hofmann, amongst foreign chemists, have communicated many of their most important discoveries to it; nearly every one of the founders whom we have named contributed reports of technical and theoretical importance, many of which have since become classic. The charter mentions what the Society had done for the adaptation of chemical science to industry,

and this influence the Society assiduously fostered for many years after it removed to Burlington House. As chemical science has developed, the Society has gradually left its applications behind, and its former task has been taken up by the Society of Chemical Industry. The wideness of the science, rather than the narrowness of the Society's constitution, is the cause of this, and now the proceedings are mainly taken up with monographs and papers in the purely philosophical and specialised departments of chemistry. Few of the members can possibly interest themselves in such work; and, were it not for the titular value of the fellowship, it is questionable if the Society would have support commensurate with its requirements. In the group of famous fellows of the Society which our artist has contributed as a memento of this noteworthy jubilee, we do not find more than a few names in the very front rank of science. But all the portraits are those of men who have done sound and substantial work in the patient investigation of Nature's mysteries, and their more or less brilliant results have done honour to the Society, to whose aid and encouragement they were largely due.

THE MARKET VALUE OF A CHEMIST.

SOME time ago, in the course of a lively correspondence in this journal on "Dispensing Charges," several writers of letters quite properly claimed that special payment was due from the public for medicines dispensed from prescriptions in view of the time, care, and skill involved in their preparation. To this argument "A Very Minor Man" smartly replied that the market value of the time, care, and skill was about 4*d.* per hour, which did not justify much addition to dispensing charges. Fourpence per hour is perhaps too low an estimate, and seems to have been based on salaries paid with board and lodging, but at eightpence to tenpence per hour it is certain plenty of qualified, educated, capable men can be engaged to do a pharmacist's most responsible duties. We are reminded of this calculation by the letter which Mr. A. P. Barnard sends us this week. Mr. Barnard is one of our pharmaceutical politicians, and he is also an active member of the Bethnal Green Board of Guardians. That Board recently advertised for a dispenser, offering a salary of 130*l.*, rising in two years to 150*l.* There were, we believe, over fifty applications for the position. The interesting point in Mr. Barnard's communication is that the Local Government Board, by whom the salary is paid, refuse to sanction the amount offered. They insist on a qualified man being engaged, and they limit his remuneration to 120*l.* per annum, rising in four years to a maximum of 140*l.*

We do not criticise the decision of the Local Government Board. It is their business to keep down expenses on behalf of the taxpayers, and we only wish their economical and rigid policy in this instance prevailed all through the Civil Service—from dispensers to Ministers. But the fact is worth noting. The officially-recognised scale of pay for a qualified chemist is, say, from 8*d.* to 10*d.* per hour.

Verily, man as a chemist is a bad investment! At a moderate computation, he cannot well be raised, trained, educated, and examined for less than 1,000*l.* The profit on his work, after feeding, clothing, and housing him could scarcely reach the very modest rate which the Chancellor of the Exchequer calculates as the fair price which the nation should pay for capital invested. And the sum which the Local Government Board "sanctions" is a fair average. There are better dispenserships attainable, but there are very many worse.

But this is not the particular grievance which Mr. Barnard suggests in his letter. He tells us that a retiring officer had to be appointed to the same workhouse almost contemporaneously with the dispenser, and that the Whitehall authorities sanction a pay at a 20-per-cent. higher rate for the relieving officer than for the dispenser. The former has had no special training, and needs none, and his duties can hardly be said to be so responsible as those of the dispenser.

But the Local Government Board can hardly be blamed for this state of things. They pay as little as they think will suffice to get what they require. It happens, we suppose, that the market for dispensers is flatter just now, in larger supply, than that for relieving officers. Year by year young men crowd in, and though the examinations sift out nearly half of them, there still remain more than are necessary. Carlyle once said something to the effect that the only way men could raise themselves in the market to the value of horses would be for half of them to go and hang themselves. Will 50 per cent. of our body oblige?

THE MINERAL-WATER TRADE.

AMONG the industries affected by recent fluctuations in the market prices of commodities, that of the mineral-water manufacturers appears to have been peculiarly unfortunate. By a singular coincidence of circumstances, which is rare in the records of industrial progress, there has been during the last two years or so a considerable increase in the cost of all the principal items of the mineral-water maker's outlay on the one hand, while on the other there has been certainly no surcease, but probably an increased aggravation of competition and under-selling among members of the craft. The two principal items of a mineral-water maker's outlay, apart from his plant—namely, labour and bottles—have both become considerably dearer. The labour disputes, which have made 1890 notorious in our industrial history, have not been without effect upon the mineral-water trade, in which the proportion of unskilled workers far exceeds that of the skilled workmen engaged. Glass bottles have been advanced two or three times by increments of 10 per cent. during the last two years, and although the attempt to weld the whole of the glass-bottle industries of this country into one gigantic syndicate has not yet been successful, sufficient cohesion has been established among the principal manufacturers of mineral-water bottles and other glassware to enable them to apply with success periodic turns of the screw upon their customers. It is true that they themselves are largely the victims of circumstances, and that their action in raising the prices of their goods may in a great measure be accounted for by the higher rates which they themselves have to pay for labour, sand, salt, cobalt, &c. Among the ingredients used in the manufacture of aerated waters, sugar and glucose are probably the most costly as regards bulk. The price of the former article, although of course subject to considerable fluctuation, has had a decided tendency, during the last two years, to become dearer, and, as a matter of fact, the quotations for the various grades of sugars, including the large loaves or "Titlers" used by the mineral-water makers, are at the present time from 10 to 15 per cent. higher than they were nine months since. In other articles which are indispensable to the aerated-water manufacturer, though his total annual expenditure upon them may not approach his outlay on bottles or sugar, a still more pronounced tendency to increase in price has been manifest. We refer especially to ginger, citric acid, and essential oil of lemon. Sulphuric acid, too, shows a

tendency in the same direction. In all varieties of ginger there has during the last two months been an unusual amount of speculation, and although for the moment this wave has flagged, it has left the quotations much higher than it found them when it set in. Jamaica ginger, the most expensive of all varieties of the rhizome, has been comparatively unaffected by the recent speculation. Its production is small—about 9,000 cwt. being a fair average yield in the island—and it is nearly all consumed in this country and other English-speaking markets, where it always commands a high price. Of the other varieties of ginger met with in our markets—African, Cochin, Bengal, &c.—the first, for which Liverpool is the commercial centre, is said to be best suited for liqueur purposes, and Bengal ginger is also largely used for that purpose. Cochin ginger is the leading variety of the article, and it is in it that the recent speculation originated. To the increase in the price of citric acid we referred recently, and although tartaric acid still remains cheap, and is no doubt largely used as a substitute for citric acid when the difference in price between these two chemicals becomes pronounced, the enhanced cost of citric acid is by no means a matter of indifference to the aerated-water maker. Essential oil of lemon has more than doubled in price within the last twelve months, and to all appearance quotations for this important article of consumption in the mineral-water trade will remain high throughout the season. Here, then, we find the trade, at the commencement of its busy season, confronted with a general increase in the cost of its elementary requirements.

MORE REMEDIES FOR TUBERCULOSIS.

DR. KOCH's bacterium essence has been named "Tuberculine." There are signs that this definition is rather in the way of an epitaph than of a baptism. But the wonderful boom of enthusiasm which his announcement excited naturally tempts other discoverers into the same field. On Wednesday of this week two important lectures were delivered—one in Paris, the other in Berlin—both by eminent investigators, in which methods of treatment quite different from that of Koch were explained and demonstrated. The remedy proposed by Professor Liebreich, of the Pharmacological Institute, Berlin, is cantharides. This is an old treatment revived. French physicians gave cantharides long ago in tuberculosis, and, it is said, with success; but the crude fly was too variable in strength, and consequently too uncertain in effect. Professor Liebreich employs cantharidate of potash, injecting it in doses of two deci-milligrammes. He claims that in this dose an effect will be produced on capillaries in a state of irritation only. Liebreich says that in this condition the cantharidate excites the exudation of serum, without cellular exudation, and he supposes that the serum thus exuded may have a disinfectant action. At any rate, he believes he has proved that it has a value in the treatment of bacterial disease. He claims to have obtained benefit in several cases by this method.

Dr. Bernheim, of Paris, offers what seems to be a more substantial system of cure. This has been already described, and the demonstration on Wednesday was intended as evidence of progress. Dr. Bernheim is treating a number of tuberculous patients by transfusing into their veins the arterial blood of the goat. The goat is believed to be proof against tuberculous disease. The operation, as exhibited, consisted in binding a goat firmly in the doctor's study, then an assistant cut the throat down to the carotid artery with a histoury. This was the third time in the present month

that the animal had gone through the same process. The last time two kilogrammes of blood were taken. Some hours later it was on its feet again and eating. The human subjects enter and present their bare arms to the operator, kneeling close to the table where the goat is lying. The patients, chiefly women and girls, had all been transfused already once or twice. As in ordinary bleeding, the patient's arm is tightly bandaged above the elbow. A small incision is then made with a lancet, when the venous blood begins to flow. Then the assistant introduces into the incision a cannula ending in an india-rubber tube, a cannula at the other end being fixed in the carotid artery of the goat. One minute and a half suffices to inject 150 grammes of blood, meanwhile the patient converses calmly. Dr. Bernheim gives very hopeful reports of his success in the twenty-two cases of tuberculosis he has so far experimented with, some of which he states were almost desperate when the treatment was commenced.

COMMENTARY.

THE GERMANS AND THE JAPANESE DRUG TRADE.—At a recent meeting of the Berlin Pharmaceutische Gesellschaft Mr. Fritz Riedel read a paper on a collection of Japanese drugs exhibited by his firm, and subsequently presented to the museum of the young society. The paper commenced with a glowing account of the importance of Japan as a field for the export of German galenicals and the Teutonic leanings of the modern Japanese reformers. Mr. Riedel rejoiced in the knowledge that the Japanese army was being drilled and organised on a German pattern. That Britain has served as a model for the new Japanese constitution and parliament Mr. Riedel did not mention. Perhaps he did not know it. Perhaps the fact would not have fitted in with his statements about the Germanisation of Japan. Anyhow, from that one great engine for the destruction of human life on German principles, the army, the author's remarks drifted smoothly on to the medical profession. That profession, in Japan, was also imbued with German ideas, large numbers of young Japanese now practising in their native land having obtained their degrees at German universities. German pharmacy finds its main exponent in the country of the chrysanthemum in Professor Nagai, who qualified at German universities in the seventies. Professor Baetz, of Tokio, is prominent among the German medical practitioners of high repute established in the principal ports of the country, and whose native pupils, when they become practitioners on their own account, spread philo-Germanic views into the remotest districts of the country, and are always amongst the most eager inquirers for, and experimenters with, the new preparations that issue from German laboratories. Mr. Riedel spoke highly of the "Naimusho," the department charged with the duty of applying to all pharmaceutical preparations imported into Japan the very severe tests of the Japanese Pharmacopœia. Goods falling below that standard are not allowed to enter, those proved to be adulterated are confiscated. In return for the preparations which she buys from Germany, Japan has very little to offer to her European customers in the way of materia medica. In her dominions the rhubarb, the musk, and the tea (*sic!*) of China are wanting, and wax, galls, camphor, and a few essential oils are the main constituents of the Japanese quota to the world's drug trade. But the collection shown at the meeting consisted principally of drugs unknown, or very little known, out of Japan, although thirty-four specimens among the number represented articles also in use among the

Chinese, such as the root of *Scrophularia Oldhami*; the fruits of *Forsythia suspensa*, *Tribulus terrestris*, and *Quisqualis chinensis*; the seeds of *Anomum xanthioides*, *Murica Cochii*, *Chinense*, &c. Among the purely native Japanese drugs are seeds of *Canaralia incurra*, *Ellosia argentea*, *Phaseolus radiatus*; fruits of *Stemone sessilifolia*; root of *Hedraea Thunbergii*, *Nardostachys Jatamansi* (formerly official on the Continent as *Spica vel Nardus indica*), the rhizome of *Acorus gramineus*, &c.

CHOLERA AND SNAKE-BITE.—It is a somewhat remarkable circumstance that while the advanced physicians of Europe are seeking remedies for certain of the most dire diseases, in the attenuated virus of such diseases, or in the blood of animals immune to them, the same principle is advocated in India for the cure of snake-bite and cholera. We have received from Mr. Dinshah Ardeshir, municipal commissioner to the Maharajah of Baroda, a copy of "A Note on the Probable Discovery of Snake-bite and Cholera Cure." This note is written in good if somewhat quaint English, and sketches out the experiments that it is desirable to make. In regard to snake-bite, Mr. Ardeshir informs us that a certain tribe of serpents yield in their skull a semi-transparent, yellowish substance, which is called the serpent's *mohara*, and the application of which to a snake-bite prevents any evil consequences. But it is not this which Mr. Ardeshir would investigate, nor the roots and other antidotes which have been brought under his notice. The remarkable fact that the common weasel attacks serpents, whose bites have no fatal effect upon it, has led him to the "belief that the blood of the weasel must in itself be an antidote for snake-poison." Accordingly, he proposes to inoculate various animals, which have been bitten by a venomous serpent, with the blood-serum of a weasel. This proposal conforms exactly with the line of the diphtheria research which has recently been completed. As "an alternative process" Mr. Ardeshir also proposes to "attenuate" the serpent virus, if we may use the expression in this case, by inoculating the blood of animals with serpent virus, "and then constituting an extract for inoculation into the blood of a human being bit by a serpent," provided the method is first shown to be successful on the lower animals. This looks like sound science according to Koch and his disciples. Koch's failure with cholera does not intimidate Mr. Ardeshir, whose opinion is that the reason why we have not "an infallible cure for cholera is our failure in getting at the root of this fell disease." He goes on to say that—"A patient who has died of cholera in its virulent form has never yet been dissected; this should be done in several cases, but of various pathological traits. Competent dissectors should discover the existence of the finally-developed germs, which, in their last stage, supervene life-vitality. . . . It is not the analysis of the last stool or the emetrical discharge of a cholera-dying man that may alone solve the ghastly mystery which liquefies and rots the luckless victim. The original seat of this deadly putrescent liquid, or of the nihilistic microscopic germs, has yet to be discovered; in what subtle form they exist; how subtly they come into preponderative life; in what manner they enfeeble and, last of all, completely scotch our life-blood." When this discovery is made, when we have got hold of the enemy, "we shall simultaneously hit upon the inimical elements which can as effectually destroy this dread germ, fluid, or gas, or all these three elements put together, as they now destroy human life." This, and more that is perhaps not so much in accordance with science as with tradition, the author sets before the Maharajah's Administration and the medical faculty of Baroda for investigation. If a Commission is

appointed, we trust that it will be more fortunate than the chloroform one.

BUCHU AS A PERFUME.—For some time there has been a great scarcity of buchu leaves, and the value of the round leaves (*Barosma crenulata*)—which is the variety most commonly met with in our market—has risen from about 2d. to 6d. per lb., although it is now again falling. The drug belongs to those minor articles of materia medica of which the supply and demand are not sufficiently important to create a regular speculative market. It was introduced into European medicine in 1821, although long before that time the leaves were used by the natives of South Africa, not so much, it would seem, as a medicine as a perfume! Says a South African traveller, in a book published early in the present century:—"The Hottentots perfume their bodies by darning them all over with the powder of an herb, the smell of which is at once rank and aromatic, approaching to that of the poppy mixed with spices. For this purpose they use various species of the diosma, called by them *bucku*, and which they imagine to be very efficacious in the cure of disorders. One species of this plant, growing about *Goud's river*, is said to be so valuable that no more than a thimbleful of its powder is given in exchange for a lamb."

LAVENDER AND ITS VARIETIES.

By J. CH. SAWER, F.L.S.

LAVENDER—technically *Lavandula*. This name is generally considered to be derived from the word *lavando*, gerund of the verb *lavare*, "to wash" or "to bathe," and to originate from the ancient Roman custom of perfuming baths with the flowers of this plant.

The general aspect of the various species which compose this genus of labiate plants, although presenting very characteristic differences, merges gradually from one species to another; all are, in their native habitat, small ligneous undershrubs of from 1 to 2 feet in height, with a thin bark, which detaches itself in scales; the leaves are linear, persistent, and covered with numerous hairs, which give the plant a hoary appearance.

The flowers, which are produced on the young shoots, approximate into terminal simple spikes, which are, in vigorous young plants, branched at the base and usually naked under the spikes.

As a rule, lavender is a native of the countries bordering on the great basin of the Mediterranean—at least eight out of 12 species are there found to be indigenous on mountain-slopes.

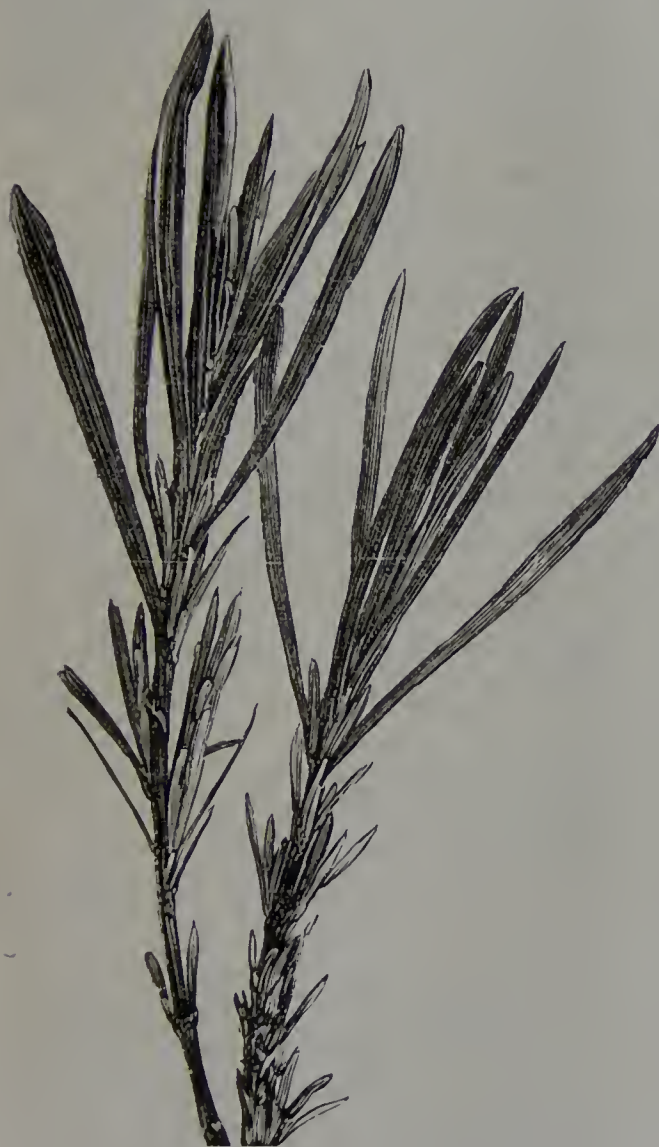
The most commonly known species are *L. vera*, *L. spica*, and *L. stoechas*. Commercially the *L. vera* is the most valuable by reason of the superior delicacy of its perfume; it is found on the sterile hills and stony declivities at the foot of the Alps of Provence, the lower Alps of Dauphiné and Cevennes (growing in some places at an altitude of 4,500 feet above the sea level), also northwards, in exposed situations, as far as Monton, near Lyons, but not beyond the 46th degree of latitude; in Piedmont as far as Tarantaise, and in Switzerland, in Lower Vallais, near Nyon, in the canton of Vaud, and at Vuilly. It has been gathered between Nice and Cosni, in the neighborhood of Limoné, on the elevated slopes of the mountains of western Liguria, and in Etruria on hills near the sea. The *L. spica*, which is the only species besides *L. vera* hardy in this country, was formerly considered only a variety of *L. vera*; it is distinguished by its lower habit, much whiter colour, the leaves more congested at the base of the branches, the spikes denser and shorter, the floral leaves lanceolate or linear, and the presence of linear and subulate bracts. It yields by distillation an oil termed "oil of spike," or, to distinguish it from oil of *L. stoechas*, "true oil of spike." It is darker in colour than the oil of *L. vera*, and much less grateful in odour, reminding one of turpentine and rancid

coker-nut oil. It is used by painters on porcelain, and in the manufacture of varnishes; it is often largely admixed with essence of turpentine.

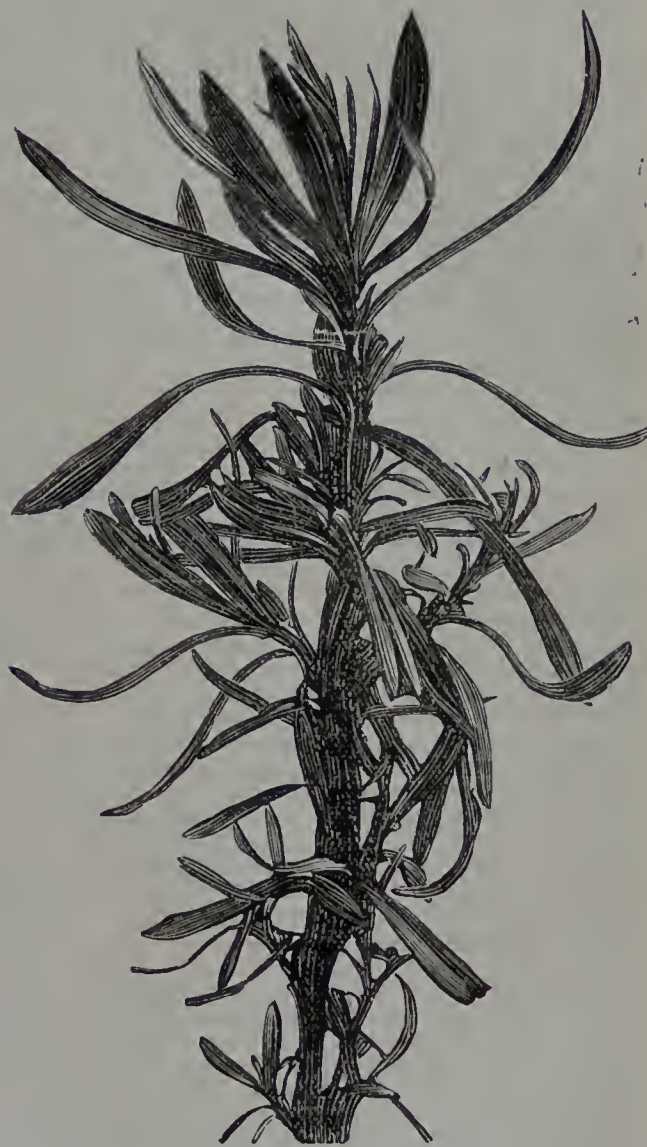
L. stachas (Στάχας) was discovered prior to the year 50 A.D. in the Stachades Islands (now the Islands of Hyères), hence the name. At present it is found wild in the South of Europe and North of Africa, also at Teneriffe. The leaves are oblong linear, about half an inch long (sometimes an inch long when cultivated), with revolute edges and clothed with hoary tomentum on both surfaces; the spike is tetragonal, compact, with a tuft of purple leaves at the top; the calyces are ovate and slightly shorter than the tube of the corolla. The whole plant has a strong

The other species which are distinctly characterised are *L. pedunculata*, *L. viridis*, *L. dentata*, *L. heterophylla*, *L. pyrenaica*, *L. pinnata*, *L. coronopifolia*, *L. abrotonoides*, *L. Lawii*, and *L. multifida*.

The *L. multifida* is synonymous with *L. Burmanii*. In Spain the therapeutic properties of *L. dentata* are alleged to be even more marked than in the oils of any of the other species of lavender. It is said to promote the healing of sluggish wounds, and when used in the form of inhalation to have given good results in cases of severe catarrh, and even in cases of diphtheria. In odour this oil strongly suggests rosemary and camphor. Its specific gravity is 0.926 at 15° C. It distils almost completely between 170° and



LAVANDULA VERA.



LAVANDULA SPICA.

(From photographs of the plants. Natural size.)

aromatic and agreeable flavour. There is a variety of this species (*L. macrostachya*) native of Corsica, Sicily, and Naples, which has broader leaves and thicker octagonal spikes.

L. stachas is known in Spain as "Romero Santo" (sacred rosemary). Its essential oil (also that of *L. dentata*) is there obtained for household use by suspending the fresh flowering stalks, flowers downwards, in closed bottles and exposing them for some time in the sun's rays; a mixture of water and essential oil collects at the bottom, which is used as a hæmostatic and for cleansing wounds. The specific gravity of Spanish oil of *L. stachas* is 0.942 at 15° C. It boils between 180° and 245°. The odour of this oil is not at all suggestive of that of lavender, but resembles more that of oil of rosemary, possessing also the camphoraceous odour of that oil. In India, this oil is much prized as an expectorant and antispasmodic.

200°. The specific gravity of the oil of *L. vera* (according to Glückiger and Hanbury, *Pharmacographia*) ranges between .87 and .94. The same authorities state that in a tube of 50 millimètres the plane of polarisation is diverted 4.2° to the left.

Dr. Gladstone found (Jnl. Ch. Soc. xvii. 3) that a sample of pure oil of *L. vera*, obtained from Dr. S. Piesse, indicated a specific gravity of .8903 at 15° C., and that its power of rotating the plane of polarisation (observed with a tube ten inches long) was -20°. Compared with these results he found the sp. gr. of oil of turpentine to be .8727, and the rotatory power -79°.

Although *L. stachas* was well known to the ancients, no allusion unquestionably referring to *L. vera* has been found in the writings of classical authors, the earliest mention of this latter plant being in the twelfth century, by the Abbess Hildegard, who lived near Bergen-on-the-Rhine. Under the

name of *Llasant* or *Llasantly*, it was known to the Welsh physicians as a medicinal plant in the thirteenth century. The best variety of *L. vera*—and there are several, although un-named—improved by cultivation in England, presents the appearance of an evergreen under-shrub of about 2 feet in height, with greyish-green linear leaves, rolled under at the edges, when young; the branches are erect and give a bushy appearance to the plant; the flowers are borne on a terminal spike, at the summit of a long naked stalk, the spike being composed of six to ten verticillasters, more widely separated towards the base of the spike; in young plants two or four sub-spikes will branch alternately in pairs from the main stalk; this indicates great vigour in the plant, and occurs rarely after the second year of the plant's growth. The floral leaves are rhomboidal, acuminate, and membranaceous, the upper ones being shorter than the calyces, bracteas obovate; the calyces are bluish, nearly cylindrical, contracted towards the mouth, and ribbed with many veins. The corolla is of a pale bluish violet, of a deeper tint on the inner surface than the outer, tubular, two-lipped, the upper lip with two and the lower with three lobes. Both the corolla and calyx are covered with stellate hairs, amongst which are embedded shining oil-glands, to which the fragrance of the plant is due. The *L. vera* was identified in 1541, and introduced into England in 1568, flourishing remarkably well under cultivation, and yielding an oil far superior in delicacy of fragrance to that obtained from the wild plant, or to that obtained from the same plant cultivated in any other country.

When it is remembered that north of the 50th degree of latitude the vine yields little but garlands of leaves, and that we should attempt in vain to cultivate the olive north of the 44th degree, it may seem strange that the *Lavandula vera*, which is a native of about the same climate as these, should resist, unprotected, the vigorous frosts of this country; even at Upsala, latitude 59° 51' N., in the Botanic Garden, it merely requires the shelter of a few branches to protect it in the winter; but this hardiness may be accounted for by several physiological reasons. Like all fruticulose labiates which have a hard compact tissue, and contain much oily matter, the lavender absorbs less moisture than herbs which are soft and spongy, and, as it always prefers a dry calcareous, even stony, soil, the northern cultivators find that by selecting such localities the tissues of the plant take up so little water that the frost does not injure them. In a northern climate the length of the days in summer, and the natural dryness of the air, compensate in some measure the reduction of temperature, and mature, the plant only to the extent sufficient for the purpose for which it is grown. Perhaps the suspension of vital action during winter, which must be more complete in northern latitudes, as our frosts are more severe, tends to preserve certain plants, native of the South, for it is observed that all plants are more sensitive to cold when vegetation is active than when it is at rest. The vine is an instance of this. On the other hand, when the plant is cultivated further south than its natural boundary, the same causes seem to exert their influence, but in the reverse sense. Lavender is cultivated on the mountains of Yémen, in Arabia; the humidity, increasing inversely to the latitude, compensates the exhaling force of the sun's rays, and the elevation of the locality the effects of the heat. Thus is confirmed, both in north and south, the law of vegetable physiology observed by De Candolle, in the temperate climates of France, and published in his "Essai de Géographie Botanique," that "plants can best resist the effects of cold in a dry atmosphere, and the effects of heat in a humid atmosphere." A mild damp winter, like the one of 1889-1890, does more harm than a hard, seasonable frost, as the plants are apt to make green shoots prematurely, and the late frosts nip off these tender portions, each of which would otherwise have produced a flower-spike. The very severe winter of 1890-1 did not kill so many plants as the one of 1889-90. The stems and branches of lavender being ligneous and strong are able to resist the force of the wind, and the plant thrives best in a perfectly open locality, where the air circulates freely; the oil and resin which it contains in abundance enable it to resist the parching action of the wind and sun; thus, on the most arid and sterile ground on the mountain-sides in the South, and especially in Spain, plants of this genus flourish with more vigour in the season when most other vegetation is scorched

up by the ardent rays of the sun, and the *Lavandula vera* seems to have a predilection for such spots. Certainly the plants then assume a more stunted appearance than in richer soil, but at the same time the perfume is stronger and sweeter; the calyces become charged with oil-glands, and yield a greater abundance of volatile oil. In a very moist soil the water penetrates too much into the tissues, detaches the bark, the plant blackens at the root, and a white fungus attaches to the main stem and lower branches; it becomes feeble, diseased, and dies. A rich soil furnishes too much nutriment, the plant grows very large and herbaceous, becomes over-charged with water relative to its assimilating and elaboratory power, especially if growing in a cold climate, and the equilibrium of the chemical proportions necessary for the formation of natural juices becomes deranged at the expense of the quantity and quality of the volatile oil produced. These facts, long ago pointed out by Linnæus, have been verified in England; some years ago a disease manifested itself in most of the plantations, which, not being understood by the growers, was not remedied (in fact, is not generally understood and remedied at the present time), the acreage under cultivation decreased, and, partly owing to this and a scarcity occasioned by a failure in the crop, the price of the oil rapidly rose from 50s. to 200s. per lb.; consequently, with the continually increasing demand and the continued rise in price, manufacturers of lavender-water and of compound perfumes in which oil of lavender is a necessary ingredient commenced to buy the French oil, and vendors of the English oil commenced to adulterate largely the English with the French oil. By degrees the French oil became almost entirely substituted in England for the English, and at present it is difficult to purchase true English lavender-water of a quality equal to that vended twenty years ago, except at a few first-class houses. The exorbitant profits demanded by chemists and druggists, and the incomprehensible will of the public to buy anything *cheap*, however bad, have encouraged a marvellous increase in the figures of the imports of French (and German, which is worse) oil.

In 1880, when the price had reached 125s. per lb., it was pointed out by an eminent London firm that unless the cultivation in England were extended, the price would become prohibitive, inferior oils would be introduced into the market, and so destroy the popularity of this beautiful perfume. The price still rising did, in fact, induce this importation, and to this day the hulk of chemists and perfumers continue to use these foreign oils, notwithstanding the fall in the price of the English oil.

The constant demand, however, in America (where people will have things good) will yet support the price of the genuine article—that is, of the English oil, which is the finest the world produces. Attempts were made by a French manufacturing perfumer to establish a plantation in the South of France of plants taken from parent stems grown in England. The result was that the young plants deteriorated to their original condition—even there, in their native habitat. The character of a plant and the character of its produce depend even on more than a similarity of soil and geographical position: it is asserted that a good judge can distinguish between the oils produced by two adjacent fields, and the difference in odour is very apparent between the oils produced in Hertfordshire and in Surrey; the oil produced in Sussex is different from both.

[In another article Mr. Sawyer will contribute the results of his experience in the cultivation of lavender, the distillation of the oil, and its use as a perfume.]

GUM CHICLE is the resin of the tapico trec, and is found only in Yucatan, where it is collected by the Indians. Fifteen years ago it was used only for luting machinery, and could be bought in any quantity for 1½d. per lb. It was shortly advanced to 8d., and about five years ago the importers combined and forced the price up to 10d. There is a great loss in refining the raw material. It comes in lumps the size of a man's head, and is brittle, like camphor. It flows from the tree like sap, and is collected in basins; but, in order to make it weigh more, the Indians resort to the trick of moulding it around stones or lumps of clay, which adhere to it. The resin is now extensively used in making chewing-gum.



LIBRARY Legal Reports.

A THREE-CORNERED AGREEMENT.

AT the Clerkenwell County Court,
on February 20, before Mr. Eddis,
Q.C., Messrs. T. Clayton & Son, aërated-
water manufacturers, Bow Common Lane,

sought to recover from Messrs. Cox & Co., also aërated-water manufacturers, York Road, King's Cross, the sum of 6*l.* 15*s.* on an alleged verbal agreement. In September last both firms supplied aërated waters to a party in Poplar, and it became known to the plaintiffs that the customer was not in a sound commercial position. This person informed Mr. Clayton that he had signed an agreement by which Cox & Co. were to discharge his liabilities, which would be paid in due course. Mr. Clayton then called on the defendants. The head of the firm was away on holiday, but the chief clerk assured him it was all right, and a cheque would be sent in due course. The following day, however, he received a postcard from the clerk stating that his firm declined the responsibility, owing to certain facts which had come to their knowledge. The plaintiffs then found that the customer had closed his shop, and he considered his interests had been prejudiced by the action of the defendants. Mr. Austen, partner in Cox & Co., admitted that the clerk had made the statement alleged by the plaintiffs, but said he had no authority to pledge the credit of the firm. Since the date referred to his firm had obtained the lease of the premises formerly occupied by the defaulting debtor.

His Honour said that, if it could be proved that the plaintiffs had suffered by their forbearance, consequent on the clerk's information, their claim against the defendants would have stood in a better position. This had not been shown, and there was no agreement between Clayton and Cox, only one between Cox and the debtor; so that judgment must be entered for the defendants.

"PRICE'S GLYCERINE."—PRICE'S PATENT CANDLE CO. (LIM.) v. PRICE & CO.—ACTION FOR INJUNCTION.

THE hearing of the action by Price's Patent Candle Company (Limited) against Arthur James Cove, trading as Price & Co., Hatton Garden, in which an injunction is sought to restrain the defendant from selling glycerine or pure glycerine in bottles bearing labels calculated to deceive purchasers into the belief that they were buying glycerine manufactured by the plaintiff company, was resumed before Mr. Justice Stirling, in the Chancery Division of the High Court of Justice, on Tuesday. Mr. Graham Hastings, Q.C., with Mr. Carpmal and Mr. Wright, again conducted the case for the plaintiffs; and the Solicitor-General (Sir E. Clarke, Q.C., M.P.), Mr. Aston, Q.C., and Mr. Sebastian were for the defendants. The examination of witnesses in support of the plaintiff's case was continued.

Mrs. Fenning, wife of a silk-mercantile traveller, residing at 13 Beechholm Road, Upper Clapton, examined by Mr. Hastings, said she remembered in the winter of 1889 her husband went out for a bottle of glycerine. (Shown the bottle.) That was the bottle. She believed it to be made by Price's Candle Company. She did not ascertain at the time her husband bought the glycerine that it was not the plaintiffs'.

Cross-examined by Mr. Aston: The label of the bottle was now defaced, but the glycerine itself did that. She did not know where Price's Candle Company carried on their business. She did not think they carried it on at Hatton Garden,

or that they were perfumers. She was herself in the habit of buying glycerine from chemists in smaller quantities in any medicine-bottles. This bottle was bought from Hassall & Fort. It was the association of the name "Price & Co." with glycerine that made her think it was Price's Candle Company's. She used glycerine for different purposes; sometimes for her hands, and, if it was good glycerine, she would use it for coughs.

Mr. Thompson, member of the firm of S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, dealers in druggists' sundries, said he had been forty years in his present firm. He had known plaintiffs' glycerine ever since it was introduced.

By his Lordship: If you heard "Price's glycerine" spoken of, what would that be taken to mean in the trade? Oh, Price's Candle Company's, without doubt.

Examination resumed: If he had an order for "Price's glycerine," or "Price & Co.'s glycerine," he would supply the Candle Company's without any question whatever. He had never heard of any other Price's glycerine until this action. All perfumers used glycerine in their business, and probably they all sold it as well.

Cross-examined by Mr. Aston: He sold a great deal of the plaintiffs' glycerine. Their bottle had a label bearing "Price's Patent Candle Company (Limited)," and a stopper, with capsule also displaying the company's name. He never saw the bottle with the blue label. He knew that the plaintiffs' works were at Battersea. If he saw that the address on the label was Hatton Garden, he would not think it was Price's Candle Company. He had never heard of "Price & Co.'s glycerine" till this action. If he knew that there was a Price & Co.'s glycerine on the market, he would not take that for the plaintiffs'. He had heard of Price & Gosnell, the well-known perfumers, but it was many years since that firm split up into Price & Co. and Gosnell & Co. He did not know whether his firm had ever sent to Price & Co., in Hatton Garden, for glycerine. He had thought such a question would be put, and he had inquired in all the departments of his warehouse, and no one knew of it having been done. It was very likely that they had sent to Price & Co., in Hatton Garden, for goods, because, with perhaps 700 orders a day coming in, it was possible that there might be some small orders for goods specially described as Price & Co.'s, Hatton Garden, in which case a messenger would be sent for them. But his firm did not stock any articles of any kind from Price & Co. (Shown defendants' bottle and label.) The bottle was very similar to the plaintiffs', but, being familiar with the plaintiffs' label, he could see on the face of the defendants' that it was not the plaintiffs'. The defendants' bottle and label might have been before the public for twenty years without his being aware of it. If a leaflet accompanied the bottle that would make it more clear to him that it was not the plaintiffs'. He had not, to his knowledge, heard of "Price & Co.'s cold cream." He did not deny that there might be a variety of goods on the market as Price & Co.'s, but he did not know of them. He did not know the Candle Company as "Price & Co." at all. His firm dealt largely in perfumery. They never had any articles of perfumery from the Candle Company except their glycerine soap. In their price-lists his firm always quoted the plaintiffs' glycerine as "Price's glycerine" and "Price's glycerine soap." He produced his trade-list, and it was shown to his lordship.

Mr. Aston asked if it had been put in.

His Lordship: I have seen it. It is in for my purposes.

Mr. Aston: I did not put it in, my lord.

His Lordship: I am sorry for you; but you asked some questions about it.

Mr. Aston: Oh, well, I am sure I do not want to shut anything out.

Re-examined: People not familiar with the plaintiffs' bottles would be deceived by the defendants'.

His Lordship: Is it the use of "Price & Co." in connection with "glycerine" that you think would deceive the public?—I have no doubt it would deceive the public. I think any glycerine sold under the name of Price would deceive especially the lower classes into thinking it was the plaintiffs'.

By Mr. Aston (with the permission of the court): A large number of the public would not know about Price's Patent Candle Company, or the makers, at all; but they knew

"Price's glycerine" because it had been before the public twenty-five years.

But suppose "Price & Co.'s glycerine" had been known among the grocers, they would not mistake the one for the other.—It is just the use of the name "Price"—not the appearance of the bottle or the label—that would deceive the public. I regard "Price's glycerine" in the same sense as Rowland's macassar oil, Burgess's essence of anchovies, or Schweppe's soda-water.

William Henry Francis, examined by Mr. Carpmal, said he was a member of the firm of Heaton, Squire & Francis, Southwark Street, Surrey, wholesale and export druggists. He had been in the trade about twenty years. "Price's glycerine" was a recognised term in the trade, and the only thing he understood by it was the glycerine of "Price's Candle Company."

Cross-examined: If we kept Price & Co.'s glycerine, and if we had an order for "Price & Co.'s glycerine," we would supply it. Price & Co.'s glycerine might have been sold at the grocers' for twenty or thirty years without his knowledge.

William C. Herring, of Herrings & Co., 40 Aldersgate Street, manufacturing chemists, also gave evidence in support of the plaintiffs' case. In cross-examination he admitted that the labels on the defendants' bottles were perfectly distinct from those on the plaintiffs'. The plaintiffs' bottles bore the words "Price's Patent Candle Company, London, Liverpool, and Manchester," and they set forth that the glycerine was manufactured by a patent process. Defendants' label said, "Distilled by a new process," and it gave the name and address, 72 Hatton Garden. Price & Co., Regent Street, might have been known among grocers for thirty years without his knowledge. There were various glycerine-makers, but they were principally German. If asked for "pure glycerine" he could supply it from makers other than the plaintiffs. The plaintiffs were not the only makers of pure glycerine.

Mr. Samuel Roberts, of May, Roberts & Co., wholesale manufacturers of druggists' sundries and dealers in proprietary articles, was next called. Being a member of the Society of Friends, Mr. Roberts made the affirmation usual in such cases. His evidence was confirmatory of that previously given.

Mr. F. H. Lescher, of Evans, Lescher & Webb, wholesale druggists, Bartholomew Close, said that the plaintiffs' glycerine was known as "Price's glycerine" "Price & Co.'s glycerine," or, as it was ordered from Paris, "Glycerine de Price."

Cross-examined by the Solicitor-General: The bottle and label did not resemble the plaintiffs' very much.

The defendants' glycerine does not pretend to be made by the Candle Company, does it?—You are asking too much now. (Laughter.)

Well, I will ask a little less. There is no word there that suggests the Candle Company?—The first word, "Price," does.

His Lordship: Am I to understand that the first word, "Price," would lead you personally to think it was the plaintiffs'?

Witness: May I be allowed to separate myself as a wholesale druggist from myself as one of the public? (Laughter.)

The Solicitor-General: I should like to see him so separate himself, my lord. (Renewed laughter.)

Witness: Well, as a wholesale druggist, I should not take the one for the other. As a member of the public, the first word "Price" would make me take the defendants' for the plaintiffs'.

The Solicitor-General: You have been a wholesale druggist for a good many years. How can you tell what you would have thought as a member of the public? (Laughter.)

Witness: I try very hard not to be a wholesale druggist after six o'clock every evening. (Great laughter.)

The Solicitor-General: And the conclusion is that at five minutes to six you would not be deceived; at five minutes past six you would be deceived?

Witness: I think that is the logical conclusion. (Laughter.)

The following other witnesses in the wholesale trade were also examined:

Messrs. William Manning Watts, of Battley & Watts, wholesale chemists and druggists, Whitecross Street, Cripplegate; Edward Harvey, of Barron, Harveys & Co., wholesale and

manufacturing chemists, Giltspur Street; David Cecil Gibb, of D. & W. Gibb, City Soapworks—a firm said to date from the beginning of the last century, and who now also manufacture and refine glycerine; Sydney Morgan, of Harker, Stagg & Morgan, wholesale druggists, Laurence Pountney Lane; Albert Domeier, importer of continental glycerine, St. Mary-at-Hill; and Samuel C. Welsh, manager, Baiss Brothers & Co., wholesale druggists and manufacturing chemists, Jewry Street.

Evidence of retail chemists was then taken to show that Price's glycerine, Price & Co.'s glycerine, and by some "pure glycerine," or even "glycerine" alone, meant, in the opinion of the witnesses, the glycerine made by the plaintiff company. These witnesses were:

Frank Freeman, manager of the drug department of the Army and Navy Stores, who said he first heard of the defendant company's glycerine by seeing a report of legal proceedings in THE CHEMIST AND DRUGGIST last year; George S. Woolley, chemist and druggist, Manchester; James Vince, chemist and druggist, Lancaster; Barnard S. Proctor, of Proctor, Son, & Clague, Grey Street, Newcastle; Thomas Parker, chemist, Preston; Tbos. F. Abramam, of Clay & Abramam, Liverpool, and Jas. L. Newbigging, chemist, Alnwick, Northumberland.

Louise Antoine, residing at Balham, deposed to having bought at the end of 1889 a bottle of glycerine from Price & Co.'s grocery stores. She saw "Price" on it, and she believed that she was getting a bottle of "Price's Patent Candle Company's glycerine."

This closed the case for the plaintiffs.

On Wednesday the Solicitor-General, having opened the case for the defence,

The defendant, Mr. Arthur James Cave, in the course of his examination in chief, gave the history of the acquisition by the late Mr. E. F. Langdale of the business of Price & Gosnell, Regent Street, in 1869. He had been Mr. Langdale's manager, and after Mr. Langdale's death, in 1885, the business was carried on by the executors, and in 1887 witness purchased the business carried on under the styles of E. F. Langdale and Price & Gosnell. The assignment was executed in 1890. Witness produced the trade-list issued by Mr. Langdale in 1873, and two label books. One contained a glycerine label, and in one there was a large placard warning the public against other firms trading as Price & Gosnell. The labels were in use in 1869, and had been used continuously ever since. The blue label was a continuation of Price & Co.'s, but with the substitution of the name of Langdale at the bottom. This label was put on every bottle of glycerine, and on many other articles. The label had never been altered. He had never attempted or desired to pass off his goods as the plaintiffs'; in fact, had never seen a bottle of the plaintiffs' until the present action. No instance had come to his knowledge of his glycerine having been passed off as the plaintiffs'.

Cross-examined by Mr. Hastings: Was not a manufacturer of glycerine. Did not buy exclusively from Fink, and had not bought from Rosbach or Sarg. Had not bought from the plaintiffs. Only bottled the glycerine purchased. Could not say whether Langdale sold glycerine before purchasing Price & Co.'s business in 1869. Had no documents showing the acquisition by Langdale of Price & Co.'s business. The stock was sold by tender. Mr. Langdale never carried on the business in Regent Street or Lombard Street. Mr. Langdale applied to register the blue star labels in 1884 for toilet powder. Could not say why application was not made to use it for glycerine. So far as he knew, Mr. Langdale never applied to register in respect of glycerine. The business of Price & Gosnell had been carried on as Price & Co. The books (produced) showed that the average sales (home, export, and labelled bottles) for twelve years, from 1875 to 1886, was 32½ a year. Never received orders for "Price's glycerine," or "Price's pure glycerine." The orders were for "Price & Co.'s glycerine." In the day books the entries "Price's glycerine" appeared simply as contractions. The glycerine business had increased since 1887.

Re-examined: So far as he could trace, the label had been in use for thirty years. The book produced was brought from Price & Co.'s, Regent Street, and it came into his possession as the successor of that business. Never invoiced his glycerine to any customer under the name of "Price's

glycerine." To his knowledge his glycerine had never been sold under any other name than "Price & Co.'s glycerine." Never heard it suggested until this action that Mr. Langdale was not entitled to trade as Price & Co.

Mr. Holland, in the course of his examination, said he was in the employ of Price & Co. from 1841 to 1868. Glycerine was sold as "Price & Co.'s pure glycerine," to his knowledge, from 1846, and he had himself sold it over the counter.

Other evidence of the trade user of the labels was given.

Professor Atfield, examined, said he was the sole editor of the recent additions to the British Pharmacopœia. He had analysed the plaintiffs' and defendants' glycerine, and in his opinion for medicinal purposes the one was as good as the other.

Cross-examined: Did not think that the public made any distinction between Price & Co. (Limited) and Price & Co.'s glycerine.

Further evidence for the defence was given when the hearing of the case was recommenced on Thursday.

Mr. Thomas Isaac Leet, "general provider," Richmond, who has over thirty shops in the suburbs of London, examined by Mr. Sebastian, said he formerly sold the plaintiffs' glycerine, but for the last three or four years he had sold the defendants'. If anyone asked for Price & Co.'s glycerine, he would think it was the defendants' that was wanted. But, as a matter of fact, most people simply asked for glycerine when they were buying small quantities.

Cross-examined by Mr. Hastings: Before he knew defendants' glycerine, if anybody had asked for Price & Co.'s glycerine he would have supplied the plaintiffs', because he knew then of no other Price connected with glycerine. If he saw "Price & Co.'s glycerine" in a trade-list, he could hardly know whether it was the plaintiffs' or the defendants' that it was intended for.

Hugh Ramsay, traveller for the defendants, said he resided at Croydon, and had been traveller for Price & Co. since December, 1879. During all that time he never heard that any customer of his imagined that he was selling the Candle Company's glycerine. He was not aware of any case in which they asked for "Price's glycerine." They merely asked for glycerine. His customers were principally grocers and oilmen.

Alfred C. Falconer, manager to Messrs. Berg & Sons, 242 Upper Thames Street, said his father had carried on business in Jermyn Street over thirty years. As far back as 1869 he could remember that he bought numerous articles—brown Windsor soap, violet powder, pure glycerine, &c.—from Price & Co., perfumers to Her Majesty, in Regent Street. All these articles were sold under the name "Price & Co." In his opinion there could be no mistaking the defendants' 4-oz. bottles for the plaintiffs' 4-oz. bottles.

Henry Sale, formerly in the employment of Price & Co., Regent Street, said he had assisted in the transfer of that business to Hatton Garden. When Mr. Langdale took over the business, he remembered that notices to that effect were issued to the customers.

Mr. Lancaster, from McCorquodale's (the printers) establishment, said that they had printed "Price & Co." labels for over twenty years—"Price & Co.'s golden oil"; but he had been unable to trace that they had printed any "Price & Co.'s glycerine" labels.

Several other witnesses having been examined, counsel for the parties addressed the court.

The further hearing of the action will be continued on Tuesday.

PHOSPHO-CITRIC ACID CASE.

ON Tuesday Lords Justices Lindley, Lopes, and Kay heard the appeal of the defendant in the action of Esilman v. Hassall, which was tried on December 3 last, before Mr. Justice Wills, at Salford. The plaintiff is a manufacturer of chemicals, and the defendant is a chemical agent and aerated-water manufacturer. The plaintiff sued to recover the sum of 529*l.* admitted to be due, and the defendant counter-claimed for a larger sum alleged to be due by way of penalties incurred in consequence of alleged breaches of an agreement.

Sir Horace Davey, Q.C. (Mr. Russell with him), said in 1884 Mr. Esilman and Mr. Hassall took out letters patent for the production of aerated waters of improved quality at reduced cost by dispensing with the use of tartaric acid or citric acid altogether, or only in limited quantities—phosphoric acid being used entirely, or with but small quantities of tartaric or citric acid. The claim of the patentees was four-fold: first, for phosphoric acid; second, for phosphoric acid mixed with tartaric acid; third, for phosphoric acid mixed with citric acid; and fourth, for phosphoric acid mixed with both. On March 21, 1885, the plaintiff Esilman assigned the whole of his interest in the letters patent to the defendant, and a certain permanent agreement was entered into between the parties—the defendant agreeing to purchase the whole of the patented preparation which he required for his business from the plaintiff, and the plaintiff agreeing to supply the defendant only (in England) with the liquid mentioned in the agreement as phospho-citric acid. The main question then resolved itself into the construction of the agreement. The defendant's case substantially was that by selling phosphoric acid alone the plaintiff had broken the agreement and incurred certain large penalties. At the trial Mr. Justice Wills held, as a matter of construction, that the agreement was to sell the liquid called phospho-citric acid to the defendant only, this being the only preparation which, down to the date of the agreement, had been used for the purposes mentioned. Against that judgment the defendant appealed, and the learned counsel submitted that the agreement ought in fairness to be construed to include phosphoric acid, phosphoric acid mixed with tartaric acid, phosphoric acid mixed with citric acid, and phosphoric acid mixed with both.

Without calling on Mr. Gulley, Q.C., who appeared for the respondent,

Lord Justice Lindley said under the agreement the plaintiff had reserved to him the sole right of manufacturing what was erroneously called in the document phospho-citric acid (no such preparation having been patented), and this he was to supply only to the defendant, under a penalty of 100*l.* for each breach. Phosphoric acid mixed with citric acid had only been used down to the date of the agreement, and this was probably why phospho-citric acid only was mentioned; and, in his opinion, if the agreement were construed to include the other preparations named in the letters patent the language of the agreement would be spread further than could be justified. The appeal must, therefore, be dismissed with costs.

Lords Justices Lopes and Kay concurred.

Order accordingly.

THE MILK-OF-SULPHUR CASE.

THE adjourned summons in the case brought by the St. James's Vestry, Westminster, against Mr. Frederick Hall, surgeon, of 1 Jermyn Street, W., under section 6 of the Sale of Food and Drugs Act, was heard at the Great Marlborough Street Police Court, before Mr. Hannay, on Wednesday, February 25. Mr. Hitchens appeared for the St. James's Vestry, and Mr. H. F. Pattinson again represented the defendant. The case was adjourned after the first hearing (reported in our issue of February 7) to allow the magistrate to obtain information regarding a decision of the Knutsford Quarter Sessions in 1887.

Mr. Hannay expressed his thanks to the two solicitors engaged in the case for the information they had afforded him regarding the decision at Knutsford. If the present case went on he would probably have to hear the same class of evidence which was laid before the magistrates in Cheshire. There had been not one only, but at least three distinct prosecutions of that kind, and with the same result—as, although in the first prosecution there was a conviction, it was quashed at the Quarter Sessions. He did not think they could expect him to fly in the face of those decisions, nor would his decision if made be of any influence in settling the matter finally. If it were possible to raise a question of law he would go on with the case at some future date, but he did not see how a question of law could be made out. The question was what did an ordinary man expect to get when he asked for milk of sulphur—was there such a thing as milk of sulphur known to the public which was different from sulphur precipitatum? The magistrates

in Cheshire held that there was. That was before a very strong bench, presided over by a legal chairman, and he observed also that the present Lord Chancellor, then Solicitor-General, was on the bench on that occasion. He would be glad if it could be suggested to him in what way he could decide the matter so that it might finally go to a superior court. He had found, further, that a similar case had also been before a metropolitan police magistrate, and he had decided in the same way as the Cheshire case.

Mr. Hitchens: But that case was not fought at all.

Mr. Hannay said he could not, of course, dismiss the summons when he had heard only one side, and as he could not take it upon himself, he would suggest, if they did not like to withdraw the summons, that he should adjourn it *sine die*, and they might be able then to consult some legal authority if they thought fit as to whether there was any way of making a law question out of it. If necessary, it could then be reinstated in the list, but at present he thought it a great waste of time to go on. He had read the Cheshire case and others, and it appeared upon the evidence of chemists and analysts that in addition to the sulphur precipitatum, which must be pure sulphur, there was an article known to commerce as milk of sulphur, and that that contained sulphate of lime, and further that the latter was preferred by many people, and recommended by certain medical men, inasmuch as when used as a purgative it was less irritant than pure sulphur.

Mr. Hitchens: Upon that last point I am prepared to give evidence.

Mr. Hannay said the course he was disposed to take was not to shut them out altogether, but to adjourn the summons *sine die*, and reinstate it if it could be treated as a question of law.

Mr. Hitchens said he had been in some difficulty in taking up the case, as he was not aware at the time of the Knutsford case.

Mr. Hannay: I daresay your opponent could produce someone who was present.

Mr. Pattinson: The difficulty they (the defendant) were in was that if they sold the article precipitated sulphur, and were asked for milk of sulphur, they were probably liable to prosecution on the face of the decision at the Knutsford Sessions. He thought it would be better for his friend to withdraw his application, and to make an application to the Medical Council to put as a synonym milk of sulphur under precipitated sulphur.

Mr. Hannay said the question was what any ordinary individual would expect to get if he asked for a quarter of a pound of milk of sulphur. Was he entitled to have the pure sulphur or this other preparation?

Mr. Hitchens pointed out that they had purchased 13 samples, and 11 of them were found to be pure.

Mr. Hannay: It was so in the case heard in Lancashire—an enormous majority were pure sulphur. Everybody was agreed about that. It struck him as a remarkable thing and all were agreed on the point that if, when a man asked for sulphur precipitatum he got pure sulphur, why should he ask for milk of sulphur?

Mr. Hitchens: Their point was that milk of sulphur was admittedly prepared by precipitation, and, that being so, it should be prepared according to the formula of the British Pharmacopœia.

Mr. Hannay: That was one of the plaintiff's strongest points. They had seen in several dictionaries and books that the two things were treated as synonyms, but in the latest edition of the British Pharmacopœia all those synonymous terms were left out, and all they had left was sulphur precipitatum. If he were to give a contrary decision to that of the Knutsford bench and others at Lancashire and Dalton, such decision would carry no weight with it. The thing was, could they not arrange so as to make a point of law of it? He thought they would probably hear nothing more of the matter if it were adjourned *sine die*. He, however, thought it was quite impossible to make it a question of law.

Mr. Pattinson said he quite agreed with Mr. Hannay. The whole point was—were there two substances?

Mr. Hannay: Unless you could go the length of saying that a chemist might not sell any article that is not in the Pharmacopœia.

Mr. Hitchens said he was not prepared to say whether they could get a case on a point of law.

Mr. Hannay: Then the case will stand adjourned *sine die*.

An application for costs by Mr. Pattinson was refused.

BEECHAM'S PILLS.—BEECHAM v. THOMPSON.

IN the Court of Appeal on Wednesday, February 25, before Lords Justices Lindley and Kay, an appeal in this action from the refusal of Mr. Justice Chitty of February 6, to direct the trial of the action with a jury at the next Durham assizes, was heard.

Mr. Simey appeared for the defendant, in support of the appeal, and Mr. Eve appeared for Messrs. Beecham.

Mr. Simey said the plaintiffs in the action were the proprietors of Beecham's pills, and the defendant, Mr. Thompson, was a chemist, carrying on business at Sunderland. The plaintiffs sought an injunction and other relief against the defendant on the ground that he had been in the habit of selling pills as "Beecham's," which were not of the plaintiffs' manufacture. The sole defence was a denial *in toto* of the charge. The question raised was purely, the learned counsel submitted, one of fact, and the proper course would be to have that question tried by a local jury. The fact, he said, was that the plaintiffs heard rumours at St. Helen's, Lancashire, that the defendant was selling spurious "Beecham's" pills, and a clerk was sent to Sunderland, who employed persons to go to the defendant's shop and ask for pennyworths of Beecham's pills. Pills were supplied, and it was alleged that they were spurious. The plaintiffs alleged five instances of such purchases, and as to one of them the defendant could prove that he was not in the shop at the time, for he was engaged in attending a bicycle race.

Lord Justice Lindley: The real question is whether you did sell "Beecham's" pills or not.

Mr. Simey replied that the defendant had sold Beecham's pills for years, and he said that the pills sold to the plaintiffs' representatives on the occasions mentioned were not only not Beecham's, but were not represented to be Beecham's. The learned counsel said he thought he should have got the order asked for from Mr. Justice Chitty on his motion, but for a letter written by the defendant's solicitor, in which he said that his client never intended to sell any more of Beecham's pills, and would be willing to submit to a perpetual injunction if the plaintiff would pay the costs incurred. This letter Mr. Justice Chitty interpreted as evidence that the application for a trial at the Durham Assizes was not *bonâ fide*, and, further, that the letter was an admission of a fraudulent sale. The learned counsel, however, said that the postscript so added to the letter by the defendant's solicitor was simply the result of indignation and a consequent determination on the part of the defendant to have nothing more to do with Beecham's pills, in which case an injunction would not hurt him.

Lord Justice Lindley asked Mr. Eve if he were willing on behalf of the plaintiff—if the order asked for were refused—to undertake to pay any extra costs which might be incurred by the trial being heard in London?

Mr. Eve replied that he was willing to give an undertaking to that effect.

Their Lordships thereupon dismissed the appeal, at the same time remarking that they did not know why the action was not brought into the county court, as it was eminently a county court case.

Appeal dismissed accordingly.

ADVERTISERS AND PAPERS.

ON Wednesday, in the Westminster County Court, before his Honour Judge Bayley, the Savoy Publishing Company sued Messrs. Stern, pharmaceutical manufacturers, at 62 Gray's Inn Road, for the sum of 20*l.* 3*s.* 2*d.* for advertisements inserted in the *Typical Times*. The action, it was explained, was brought on behalf of the official liquidator of the late *Typical Times* by special leave of the Court. The evidence went to show that the defendants had been for some time advertising in the *Typical Times* through Messrs. Mitchell, advertisement agents. In April of last year Messrs. Mitchell wrote stopping the order. The manager of the newspaper was then sent to Messrs. Stern to ask them direct whether they would not continue the advertise-

ment. The gentleman seen by the manager, who was believed to be a partner in the firm, asked whether, if he continued the advertisement, they would allow him the same percentage (10 per cent.) as was paid to Messrs. Mitchell. The manager consented to this, and a verbal order was given that the advertisement should be continued. When ultimately the account for thirteen insertions was applied for, Messrs. Stern wrote that they had never given any written order, that they knew nothing of the advertisement, and as they never recognised anything but written orders they must decline to pay the account. The manager to the late proprietors of the *Topical Times* having given evidence to the foregoing effect, said, in cross-examination, that it was customary to have orders in writing both from agents and private individuals, but he had taken thousands of verbal advertisements from private individuals. It was usual to send accounts in monthly to agents, and quarterly to private individuals. The account was not sent in to the defendants at the end of the quarter because the paper fell into liquidation about that time. It was now in different hands.

Mr. Willey Wright, for the defence, said his clients were in a very large way of business, and advertised extensively in a great number of papers. Their advertisements were always given through Messrs. Mitchell, and no one had power to give out advertisements except the advertisement or deputy advertisement manager. Both these gentlemen would swear that they did not give an order for the continuance of the advertisement. The order to stop the advertisement was sent by Messrs. Mitchell, and only once after that did the defendants receive a copy of the *Topical Times* with the advertisement in, and then it was not marked, as was customary. Advertisements were never accepted, except in an emergency, for a single insertion only, without a written order, and newspaper managers would never accept them unless accompanied by a written order. Several well-known London advertisement managers were called to prove that it was the invariable custom of the trade to have written orders, and also that it was usual to send an advertiser a copy of each issue of the paper in which his advertisement appeared. Counsel for the plaintiff contended that it was not a question of the custom of the trade, but of what actually took place. There could be no doubt that the plaintiffs' representative saw some one supposed to be in authority, who gave a verbal order, and if the defendants left a person in their office said to be in authority, they were responsible for his acts.

His Honour said there was nothing to show that an order was given for which the defendants could be held responsible. It had been abundantly proved that verbal orders were not accepted except for one insertion in an emergency, and they were not then repeated until a written order followed. If the verbal order was given, as had been sworn to, then why did not the plaintiffs, in accordance with the custom of the trade, send the next day to get a written ratification of the order? There must be judgment for the defendant, with costs.

Personalities.

Mr. F. W. KINSLEY, lately with Messrs. Lynch & Co., will henceforth represent Messrs. C. J. Hewlett & Son in the North.

MR. JOHN MORGAN RICHARDS leaves for the States to-day (Saturday) by the s.s. *Servia* on a pleasure and partly business trip.

The author of the note illustrating an apparatus for carbonic-acid gas estimation was Mr. W. H. McGrath, not McGarth, as printed.

MR. S. M. BURROUGHS has returned to London, after a month on the Riviera. He has left Mr. John Wyeth progressing to recovery, after a relapse at Nice.

MR. ANTHONY NICHOL, of Carlisle, has purchased the business of Mr. Fisher, in Bank Street, and will carry it on in conjunction with his other business in Botchergate.

MR. GEORGE LUNAN, who has been senior assistant with Messrs. James Robertson & Co., George Street, Edinburgh, has taken over their branch in Queensferry Street, and enters into possession on March 2.

MR. BENJAMIN ROBINSON, manufacturing chemist, Pendleton, Manchester, the present Mayor of Salford, has been placed on the Commission of the Peace, by order of the Chancellor of the Duchy of Lancaster.

MR. E. N. ALPE has been promoted to the chief clerkship of the Excise branch of the solicitors' department, Inland Revenue, Somerset House. Mr. Alpe is a barrister of the Middle Temple, and is the author of the "Handy-book of Medicine-stamp Duty," published by ourselves.

MR. STANLEY HARRINGTON, J.P., one of the partners in the firm of William Harrington & Son (Limited), chemists, and also one of the principals of Harrington Bros., Shandon Chemical Works, Cork, has been unanimously elected Vice-President of the Cork Incorporated Chamber of Commerce and Shipping for the current year.

PROFESSOR BEDFORD, lecturer on pharmacy at the New York College of Pharmacy, has resigned that position, which he has held for eighteen years. Coincidentally he announces a weekly issue of his journal, the *Pharmaceutical Record*. People who know the work of a weekly publication will perhaps trace some connection between these circumstances.

THE students of Westminster College visited Kew Gardens last week for their first botanical excursion. After a tea, provided by the principals, Messrs. Wills and Wootton, an illuminated testimonial to these gentlemen, signed by nearly 100 students, was presented, and with it a table-kettle and spirit-lamp to Mr. Wills, and a coffee-service to Mr. Wootton. In acknowledging these gifts it was stated that the Westminster College had been instrumental in placing nearly 2,600 names on the register of chemists and druggists.

THE dramatist who is rapidly making his mark under the name of Mr. Sylvanus Dauncey is really (says the *Star*) a younger brother of Mr. Henry Arthur Jones. He is a genial, pleasant-faced little man, who was formerly in business as a chemist, but who has now permanently deserted pills for plays. Before finally settled in London, three years ago, he managed several provincial theatrical companies with decided success. He is now Mr. Beerbohm Tree's private secretary, and besides his new one-act play, "Charity's Cloak," which is about to be produced, he has a more ambitious venture on the stocks—something in the three-act line. [We find there is a gentleman of the name of Jones on the Register; indeed there is 198 of him.]

MR. ALEXANDER EDINGTON, M.B., C.M., has been appointed bacteriologist to the Government of the Cape of Good Hope. Mr. Edington was trained as a chemist, having served an apprenticeship with Mr. John Mackay, of Edinburgh. He afterwards went to London, subsequently returning to Messrs. Mackay & Co. In the first year of his curriculum in the University of Edinburgh, Mr. Edington was awarded, after competition, the Thomson Scholarship in the sciences of botany, zoology, and advanced mechanics. During his last year of undergraduate life he was engaged in the bacteriological laboratory of the surgical department of the University, in prosecuting researches into certain diseases of domesticated animals for the veterinary department of the Indian Government. Since then he has been engaged in bacteriological work with Professor Chiche, Dr. Woodhead, and independently. In 1887 he published researches into the "Nature of the Contagium of Scarlet Fever," and in 1889 he was awarded the Syme Surgical Fellowship of the Edinburgh University for a thesis entitled "Contributions to Surgical Pathology and Physiology."

THE new Archbishop of York is well known for his wit. Happening one day to be going into the House of Lords with an ecclesiastical colleague, they were addressed by a peer who had the misfortune to be toothless, an accident having befallen his "upper case." Neither could understand the mumble of the peer, and after he had left Archbishop Magee's companion remarked to him, "What an extraordinary language! it sounds like Hebrew." "It strikes me," said the archbishop, "that it is more like gum Arabic."

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, February 26.

BUSINESS in the produce markets has been considerably interfered with since our last report by almost uninterrupted prevalence of a thick fog which rendered both the judging of samples of goods offered by public auction and the delivery of merchandise in the Docks exceedingly onerous. Nevertheless a fairly considerable amount of business has been transacted, although prices generally favour buyers. In drugs the principal feature of the week has been the advance paid privately for ipecacuanha; copaiba balsam is also reported dearer; but star-anise oil is offering somewhat lower for arrival, and the market in American oil of peppermint is also weak, cod-liver oil and olive-oil are tending higher, castor-oil remains dull and quiet. The cinchona auctions resulted in a further decline. Cuhebs are slow and neglected. In chemicals the alterations this week are very few. Quinine is weak, and offering at very low prices; cream of tartar is also the reverse of lively, and citric and tartaric acids are more or less wobbly—concentrated lemon-juice having suffered a decline. Quicksilver, dull and quiet. English refined camphor 1d. per lb. lower in price. In outside articles shellac is at last favoring holders to some slight extent. Gambier is weak and lower. East Indian arabics are rather more required, for the gum tragacanth brings full prices. Chillies and Zanzibar cloves are lower, and both black and white pepper weak and slow of sale.

TRADE WITH AUSTRALIA AND CANADA.—On Monday next, March 2, a federal convention of the six Australian colonies (New Zealand is holding aloof at present) will assemble in Sydney for the purpose of framing a constitution for the proposed united colonies of Australia, and on Thursday, March 5, the Canadians will be afforded an opportunity of showing which of the two alternatives placed before them they value most highly—the virtual ostracism from commercial relations with the United States, coupled with a probability of increased trade with the mother-country, or commercial union under the Stars and Stripes, and, as a necessary corollary, of the Canadian barriers against British goods. The Convention, as well as the elections, can hardly fail to exercise a very considerable influence upon our business relations with these two great English-speaking markets.

ACID (CITRIC).—The market is quieting down somewhat, although prices show a fractional advance on the week. On the spot 1s. 8½d. per lb. is probably the nearest price, and for delivery the quotation runs from 1s. 9½d. to 1s. 10d. per lb. Concentrated juice is lower from Messina, 26l. to 26l. 7s. 6d., f.o.b., being the present quotation. It is stated that the total shipments of citric acid in the two months December-January, 1890-91, amounted to 450 pipes only, against 1,351 pipes in December-January, 1889-90.

ACID (TARTARIC).—The market is dull and rather listless, English brands at 1s. 3d. to 1s. 3½d. per lb.; foreign at 1s. 2½d. to 1s. 3d. per lb.

ANISE.—Star-anise is offering plentifully now, and prices are more or less nominal at 110s. per cwt., though holders show no inclination at all to give way. Some other lots, of direct import from Hong-Kong, came to hand this week.

BALSAM (COPAIBA) has been in very active demand this week, and closes rather higher. It is said that 2s. 4d. per lb.

has been paid for good bright Maranham, and that 2s. 5d. is now asked, at which there is only a little more available.

CALABAR BEANS.—There have been heavy arrivals in Liverpool, about 120 hags being entered there this week, and prices declined to 5½d. per lb., at which sales have been made, but it is doubtful whether that figure could now be reached.

CAMPHOR.—The English makers have to-day reduced their quotation for refined bells from 1s. 11d. to 1s. 10d. per lb. German refined on the spot is quoted at 1s. 8d.; for March delivery a slight concession would be made.

CARDAMOMS.—The cardamom exports from Ceylon during the period from January 1 to February 2 have been:—1891, 21,435 lbs.; 1890, 37,675 lbs.; 1889, 40,238 lbs.; 1888, 30,448 lbs.

CASCARA SAGRADA.—In fair demand at 32s. 6d. per cwt. for good quality.

CINCHONA.—Tuesday's bark sales offered a fairly extensive supply, distributed as follows:—

	Packages	Packages
	of which	were sold
Ceylon bark	956	655
East Indian bark	1,526	2,203
Java bark	66	40
South American bark	183	56
Total	2,731	1,954

The assortment was a poor one, and the auctions were altogether lacking in spirit, large piles being bought in at nominal prices because the limits fixed for them could not be obtained. On the whole the market was decidedly easier, and the unit price can scarcely be said to have averaged 1½d. per lb. The following are the quantities purchased by the principal buyers:—

	Lbs.
Agents for the Brunswick works	164,370
„ Mannheim and Amsterdam works	119,224
„ Auerbach works	41,782
Messrs. Howards & Sons	38,833
Agents for the French, Italian, &c., works	36,075
„ Frankfort o/M. and Stuttgart works	29,008
Sundry druggists	37,018
Total quantity sold	466,375
Bought in or withdrawn	158,943
Total quantity offered	625,318

It should be well understood that the mere weight of bark purchased affords no guide whatever to the quinine yield represented by it; firms who buy a small quantity of bark by weight frequently take the richest lots, and *vice versa*. The following prices are shown by an analysis of the catalogues to have been paid for sound bark:—

CEYLON CINCHONA.—*Original.*—Red varieties: Ordinary woody to fair bright quilly mixed chips, 1½d. to 3d.; fair stem chips, 2½d.; dull and dusty root, 2d. to 2½d. per lb. Grey varieties: Thin branch chips, 1d.; fair stem chips and shavings, 2½d. to 2½d.; good root, 5½d. per lb.; Hybrid stem chips, 2d. to 4d. per lb. *Renewed.*—Red: Fair to fine bright quilly branch and chips, 2½d. to 5d. per lb. Grey: Fair to fine bright quilly branch and stem chips, 4½d. to 7½d. Hybrid stem chips, 3d. per lb.

EAST INDIA CINCHONA.—*Original.*—Red varieties: Ordinary woody to good bright branch and stem chips, 1½d. to 3½d.; good to fine bright shavings, 2d. to 3½d. per lb. Yellow varieties: Fair to good quilly chips, 2½d. to 5½d.; a few bright strong lots, 6d.; fine rich root, 8d. per lb. Grey varieties: Ordinary weak to fine bright quilly chips and shavings, 1½d. to 6d.; fair druggists' quill and chips, partly bright and mossy, 5d. to 5½d.; fine chips, 6½d. per lb. Hybrid dull shavings, 3½d. per lb. *Renewed.*—Good to fine bright red chips, 3½d. to 6d.; chips and shavings mixed, 5d. to 5½d. per lb. Grey: Dusty to good strong quilly chips and shavings mixed, 4½d. to 6½d.; a fine parcel, 9d. per lb.

JAVA CINCHONA.—Ledger branch, dust and root, 3d. to 5½d. per lb. For four cases fine long bright red druggists' quill an offer of 1s. 1d. per lb. was refused.

SOUTH AMERICAN CINCHONA.—Of 176 packages cultivated Bolivian *Calisaya*, part (12,280 lbs.) sold at 6½d. to 7d. per lb. for fair medium partly broken quill.

The figures giving the exports of cinchona bark from Java during the second half of the year 1890 are now to hand. Compared with preceding seasons they show the following result:—

	1886	1887	1888	1889	1890
Govt. plantations, Amst. lbs. ..	359,591	381,477	335,433	292,915	270,318
Private plantations, Amst. lbs.	982,105	1,635,729	1,854,888	2,321,745	3,851,381
Total ..	1,341,696	2,017,206	2,190,321	2,614,660	4,121,699

The exports of bark from Ceylon during the first month of the season have been small, the following being the figures for the period from January 1 to February 2:—1891, 336,857 lbs.; 1890, 428,132 lbs.; 1889, 880,791 lbs.; 1888, 671,916 lbs.

CINNAMON.—At the quarterly cinnamon auctions, which took place on Monday, 1,754 packages Ceylon cinnamon were offered, of which about 600 sold at full prices, and occasionally slightly dearer for ordinary and medium grades, while the market for fine cinnamon was much neglected, and the owners preferred to buy in the supplies rather than accept a reduction of about 2*d.* per lb., to which they would have had to submit had they forced the sale. Ordinary to fine firsts are quoted at 7½*d.* to 1*s.* 1*d.*; ditto seconds, 7*d.* to 1*s.*; thirds, 6½*d.* to 10*d.*; and fourths at 6*d.* to 8½*d.* per lb.

COCAINE.—After some show of weakness a few days ago, the market closes firmer, the lowest price of any German brand being now 20*s.* 6*d.* per oz. from certain makers, while others quote as high as 22*s.* 6*d.* per oz. Probably these quotations could be slightly shaded in the second hand.

COPPER (SULPHATE).—A steady market at 17*l.* for fair quality; Liverpool quotes 17*l.* to 17*l.* 5*s.*, and there are sellers in Swansea at 16*l.* 10*s.* per ton.

CREAM OF TARTAR.—Dull and weaker; best white French crystals may be had at 96*s.*; German powder is quoted at 98*s.* per cwt.

CUBEBS.—During the second half of 1890 the shipments of cubebs from Java amounted to 399 piculs, against 379 piculs and 148 piculs in the second halves of the years 1889 and 1888 respectively. For arrival, fair quality is being offered at 14*l.* 10*s.* per cwt. without finding buyers.

FENUGREEK SEED.—Fair *Egyptian* fenugreek is selling in Liverpool at 6*l.* per ton.

GAMBER.—Dull of sale and easier, March–April having changed hands at 21*s.* 7½*d.* per cwt. At the drysaltery auctions 20 bales cubes (all false) sold, without reserve, at 28*s.* per cwt.

GUM ARABIC.—From Liverpool a sale of 140 cases *Niger* gum, at 45*s.* per cwt., is reported. In the private market a better demand for East Indian gum arabic is reported to have prevailed since the last auctions, especially for *Madras* and good yellow *Cannepore Amrad* gums, for which higher prices have been paid.

GUM TRAGACANTH.—At last Friday's periodical auctions a good demand prevailed and very full prices were paid. Of 639 packages Syrian tragacanth offered, about 300 sold at 9*l.* 2*s.* 6*d.* to 9*l.* 10*s.* for first quality; 7*l.* 7*s.* 6*d.* to 8*l.* 10*s.* for ordinary to good seconds; 5*l.* 7*s.* 6*d.* to 7*l.* 2*s.* 6*d.* for ditto thirds, and from 5*l.* 5*s.* down to 40*s.* for fourths and pickings. The hog gum offered was all bought in.

HONEY.—*Chilian* remains firmly held; of ordinary to fair but brownish quality, 100 barrels sold in Liverpool a few days ago at 27*s.* 6*d.* to 32*s.* per cwt.

INSECT FLOWERS.—Quiet at unchanged prices, the quotations being as follows:—Closed flowers, 82*s.* 6*d.* per cwt.; half-closed, 72*s.* 6*d.*; open flowers, 62*s.* 6*d.* per cwt., c.i.f. terms. In powder some business is reported at the rate of 11*l.* per lb.

IPECACUANHA.—A very strong demand is reported this week, and prices have advanced, 8*s.* 3*d.* being paid to-day for fair usual quality, while it is said that there are now no

sellers below 8*s.* 6*d.* per lb. London-picked ipecacuanha is quoted at 10*s.* per lb. It is said that our stock is becoming small, and that a single shipment of no less than 70 packages was made to America this week.

OIL (CASTOR).—The London market is dull. Firsts Calcutta, at 4½*d.* to 4½*d.*; seconds, at 3½*d.* to 3½*d.* per lb. For arrival Calcutta oil is offering at 2½*d.* per lb., landed terms. From Liverpool a steady market is reported, with business in good Calcutta seconds at 3½*d.* and 3½*d.* per lb., at which there was very little left in the market. French oil of first pressure is quoted at 3½*d.* per lb. From Calcutta we hear, under date February 4, that some sales had just been made for shipment to the United Kingdom at somewhat lower prices.

OIL (COD-LIVER).—The fishing so far has been exceedingly disappointing, and up to last Saturday the total amount of oil obtained was officially given as 200 hectolitres, against 2,261 hectolitres at the corresponding period of last season's fishing. Prices on the whole are more or less nominal. The last quotation for new oil was equal to 90*s.* per barrel, landed terms.

OILS (ESSENTIAL).—Business in this department has been exceedingly quiet this week. Oil of *Star-anise*, although still held firmly on the spot at 6*s.* 9*d.* to 6*s.* 10*d.* per lb., is offering for shipment at as low a price as 5*s.* 11*d.* per lb., c.i.f. terms.

OIL (OLIVE).—In eating-oils the market is very firm, and prices are rising; they range from 6*s.* 6*d.* to 6*s.* 9*d.* for fine cream oil down to 4*s.* 6*d.* per gallon for ordinary eating-oils. The London stock of oil of all kinds is exceedingly small. *Mogadore* oil is quoted at 38*l.* and *Spanish* at 43*l.* The first-hand stock of cargo oil on January 31 was as follows:—

	1891	1890	1889
In London, packages ..	500	854	337
„ Liverpool, tuns.. ..	200	110	285

Advices from Italy and other Mediterranean countries referring to the olive crop are to the following effect:—In Naples there has been a decided upward movement, based upon the fact that entries of new oil continue to fall short of what had been anticipated, and the existence of a good all-round demand. The quotations show an advance of fully 10 per cent. during the month of January. In Sicily, also, there has been a better demand for oil in all positions, and prices are rising. The shipments from Messina in January were 226 tuns, including 30 tuns to England. In Corfu prices have shown great fluctuations, and at the close a rise of 10 to 15 per cent. for prompt oil; sellers of forward oil appear to have withdrawn altogether. Zante is not offering anything for export, nor are the other islands or the mainland of Greece. Advices from Asia Minor have also been less and less favourable lately, and it appears to be now confirmed that the early advices of the crop having been much reduced by the long drought last autumn were only too true. There are still no offers of oil for shipment, and spot prices are too high to encourage business. It seems likely that Marseilles will take the bulk of what oil will be available for export from this quarter. In Candia the market is very firm, while Tunis remains out of the market, as for some time past. From Morocco small shipments continue to be made by steamer to London, but from Spain no business is practicable for export to England, and quotations continue to rise. The stock of olive oil at Gallipoli, the principal Italian shipping port, on January 31 was 2,452 tuns, against 2,469 and 4,837 tuns respectively on January 31, 1890–89.

OPIUM.—There is nothing new in the London market, but reports from Smyrna state that there has been a better demand, and mention an advance of 2*d.* per lb. all round.

ORRIS ROOT.—Still advancing. Fine selected Florentine is now held by some owners as high as 112*s.* per cwt.

QUICKSILVER.—The market remains dull, but steady, the importers holding at 8*l.* 12*s.* 6*d.*, and second hand owners offering at 8*l.* 11*s.* per bottle.

QUININE.—Business has been very quiet this week, and the market closes weak and lower. A few days ago 5,000 oz. second-hand German bulk were reported sold at 10½*d.* per

oz., and to-day there are further sellers at that price, but no one ventures to buy.

SENEGA ROOT.—A good business is reported, at the rate of 2s. per lb. for good bright quality.

SENNA—It is said that a considerable advance has been paid privately for Tinnevely leaves this week.

SHELLAC—The market early in the week showed considerable firmness, but pending the big auctions announced for Tuesday very little business took place, with the exception of some button lac, which was reported sold for arrival at rather low prices. At the auctions 1,403 cases were offered, and of these 647 sold at an advance of 1s. to 2s. per cwt. on second orange, and full rates for button lac as compared with the auction rates of the week before. Fine palish orange lac sold at 69s.; ordinary reddish to good fair, 61s. to 64s.; common livery, 59s. to 61s.; mixed first button, 69s. to 70s.; and common dark fourths ditto, 40s. to 42s. per cwt. Since the auctions the spot market has ruled exceedingly firm, with sales of fine second orange at 70s.; and TN orange for March-April shipment (100 cases), 57s., c.i.f. terms, per cwt.

SPERMACEIN.—Steady, at 1s. 6d. for American, and 1s. 8d. for English refined.

SPICES—*Casia lignea* remains very steady, and at the auctions 150 boxes somewhat coarse quill realised 23s. to 23s. 6d. per cwt. In chillies there has been a considerable decline, about 40 bales Zanzihars being disposed of by public sale at 73s. to 75s. for good bright quality, being 5s. 6d. to 7s. 6d. below recent value. In cloves the market has been declining since our last report; there was a momentary firmness a few days ago, but since then the tide has turned again, and $\frac{3}{4}$ d. per lb. represents the loss in value for the week. At the auction, sea-damaged Zanzihars realised $3\frac{3}{4}$ d. to $3\frac{1}{2}$ d. per lb.; fair Penang sold at $8\frac{1}{2}$ d.; and fair Amboyna were bought in at $6\frac{1}{2}$ d. per lb. In ginger the market is quiet; 208 packages Cochin offered at the sales, of which some portion sold at 29s. 6d. to 34s. for fair small and medium size washed rough to good bright. Jamaica also quiet; ordinary dull and lean mixed 70s. 6d. to 72s. 6d.; Rhatoon, 67s. per cwt. Mace: Quiet; fair red Bombay, 2s. 6d., and good Bombay pickings, 2s. 3d. per lb. Nutmegs unchanged; business is unimportant. Black pepper has ruled quiet, and at the auctions only a small part of the 500 packages Singapore sold at the rate of $4\frac{3}{4}$ d. per lb. for fair quality; to-day the market is rather firmer for black Singapore for shipment. In white pepper Penang rules rather easier, good quality having sold by auction at $5\frac{1}{4}$ d. per lb., fair Singapore realising $7\frac{1}{2}$ d. to $7\frac{3}{4}$ d. per lb. Pimento rules firm with sales of 300 bags by auction, grey to fair at $2\frac{1}{2}$ d. to $2\frac{3}{4}$ d. per lb.

TEA—The market is "sick," and prices have given way for almost all kinds, though not to any very great extent. Common old Moning sold at $6\frac{1}{4}$ d. on Tuesday, and the quotation on the terminal market for spot delivery is $6\frac{1}{8}$ d., or nearly $1\frac{1}{2}$ d. per lb. below the highest point at the end of January. Better grades are in small supply; but a few fairly useful Monings sold from $7\frac{1}{4}$ d. to 8d. in public sale, while Panyongs, from 7d. to 9d., are tolerably cheap. Assams are very quiet, and an unusually large proportion of tea has been taken out, the bidding not being up to importers' ideas of value. The tone of the market is very different to the time, not many weeks since, when brokers were prophesying a quotation of 1s. per lb. for "type"; and while the quotation is $10\frac{3}{16}$ d. for this month, very fair Pekoe Souchong may be picked up in public sale at $9\frac{1}{2}$ d. to 10d. per lb., and good Pekoes at 11d. per lb. Ceylons share the general dullness, with the prospect of large supplies in March and April, and must be quoted $\frac{1}{4}$ d. to $\frac{1}{2}$ d. per lb. down for the week.

WAX (BEES).—From Liverpool we hear that the stock of *Chilian* beeswax is becoming exceedingly small, and very high prices are being paid.

WAX (JAPAN).—Dull; good pale squares may be had at 42s. per cwt.

CHEMICALS IN THE NORTH OF ENGLAND.

THE MARKET FOR HEAVY CHEMICALS continues steady, and with the exception of sulphate of copper, which is dearer, prices on the whole have been steadily maintained. Transactions, however, are mostly for present wants, with little doing in forward business.

CAUSTIC SODA.—A good business has been doing during the week for export, at current rates. For prompt shipment prices are 12l. 5s. per ton for 74 per cent.; 11l. 5s. per ton for 70 per cent.; and 10l. per ton for 60 per cent., f.o.b. Liverpool, with 2s. 6d. allowance at makers' works, and another 5s. per ton for forward deliveries of six months. Tync firm, at 12l. 7s. 6d. net for 77 per cent., and 11l. 5s. per ton net for 70 per cent., f.o.b.

CHLORATE OF POTASH.—Not quite so much doing. Nominal value, $5\frac{1}{2}$ d. per lb., less 6 to 7 per cent. at usual ports of shipment.

CREAM CAUSTIC.—Firm at 9l. 10s. per ton on rails at makers' works, and 9l. 12s. 6d. per ton f.o.b. Liverpool, prompt delivery.

SODA CRYSTALS.—In fair demand, at 3l. 7s. 6d. to 3l. 10s. on rails, and 3l. 10s. to 3l. 12s. 6d. per ton, in 3-cwt. barrels, f.o.b. Liverpool. Tyne market steady, at 2l. 16s. per ton, net cash, f.o.b. Tyne.

SULPHATE OF COPPER.—In good demand, and with large inquiry. For prompt delivery, the price is 17l. 5s. to 17l. 10s. per ton, and forward 17l. 10s. per ton, f.o.b. Liverpool.

MISCELLANEOUS CHEMICALS.—*Alum* (loose lump), 5l. 2s. 6d. to 5l. 5s. per ton, f.o.b. Liverpool; aluminate of soda, 32l. 10s. per ton, f.o.b. Tyne; dichromate of potash, $3\frac{3}{4}$ d. per lb., f.o.b. Liverpool; dichromate of soda, $2\frac{1}{4}$ d. per lb., f.o.b. Liverpool; blanc fixe, 7l. 10s. per ton, f.o.b. Tyne; carbonate of alumina, 27l. 10s. per ton, f.o.b. Tyne; carbonate of magnesia, 37s. 6d. per cwt., f.o.b. Tyne; chlorate of soda, 7d. per lb., f.o.b. Liverpool; chloride of barium, 7l. 15s. per ton, f.o.b. Tyne; chloride of calcium, 2l. 5s. to 2l. 7s. 6d. per ton in drums, and 5s. per ton extra in casks, f.o.b. Liverpool; hydrate of barium, 8l. 10s. per ton, f.o.b. Tyne; nitrate of baryta in crystals, 18l. 15s. per ton; ditto ground, 19l. 5s. per ton, f.o.b. Tyne; nitrate of soda, 8l. 5s. to 8l. 10s. per ton, ex quay in store Liverpool; sal ammoniac, 37s. and 35s. per cwt. for first and second quality, f.o.b. Liverpool; silicate of soda solution, 140° Tw., 4l. 7s. 6d. to 4l. 10s. per ton, f.o.b. Liverpool; 140° Tw., 4l. 7s. 6d. per ton, f.o.b. Tyne; 100° Tw., 3l. 15s. per ton, f.o.b. Tyne; 75° Tw., 2l. 17s. 6d. per ton, f.o.b. Tyne; sulphate of alumina, 5l. 10s. per ton in casks, and 5l. 5s. per ton in bags, f.o.b. Liverpool; ditto, 4l. 15s. per ton, f.o.b. Tyne; sulphate of ammonia, 10l. 17s. 6d. to 11l. 2s. 6d. f.o.r.; sulphide of barium, 5l. 10s. per ton, f.o.b. Tyne; sulphur (recovered), 5l. 10s. per ton on rails at Gateshead or f.o.b. Tyne, 5l. 5s. per ton for rock, 6l. 5s. per ton for roll, and 8l. 5s. per ton for flowers, nominal prices, f.o.b. Liverpool.

THE AMSTERDAM CINCHONA AUCTIONS.

(Telegram from our Correspondent.)

AMSTERDAM, February 26.

THE following are the analyses of the cinchona bark offered here to-day:—The manufacturing bark contained about 9 tons sulphate of quinine, or 3.86 per cent., on the average; about $1\frac{1}{2}$ tons contained 0.1 per cent. sulphate of quinine; 20 tons, 1-2; 42 tons, 2-3; 65 tons, 3-4; 60 tons, 4-5; 19 tons, 5-6; $8\frac{1}{2}$ tons, 6-7; 9 tons, 7-8; 2 tons, 8-9; 2 cwt., 10-11; $1\frac{1}{2}$ ton, 12-13 per cent. Of the total quantity offered 2,385 packages were disposed of at a decline in prices, the unit averaging barely seven cents, or not quite $1\frac{1}{4}$ d. per lb. The following was the range of prices: Manufacturing barks in quills, broken quills, and chips, 8 to 91 cents ($1\frac{1}{2}$ d. to 1s. $4\frac{1}{4}$ d. per lb.); ditto root, 15 to 50 cents ($2\frac{3}{4}$ d. to 9d. per lb.); druggists' bark in quills, broken quills, and chips, 14 to 140 cents ($2\frac{1}{4}$ d. to 2s. 1d. per lb.); ditto root, 12 to 13 cents ($2\frac{1}{4}$ d. per lb.). The principal buyers were the Auerbach and Brunswick factories.

BURROUGHS, WELLCOME & CO.

LIBRARY

Memoranda for Correspondents.

No. Send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

Remnants of Ancient Pharmacy.

SIR,—With reference to Mr. Huskisson's most interesting letter in last week's issue, may I remark that unless the cabinet of materia medica he describes was intended at the time of its manufacture to represent an apothecary's shop of a previous century, the date of its manufacture may with certainty be assigned to the eighteenth, and not seventeenth, century. The inscription—"IN LAVDEM RECEPTACVL. TAM SIMPLICIVM QVAM COMPOSITORVM MEDICAMINVM"—is of that class known as "chronograms"—i.e. the date is self-indicated if we assign to the abnormally capital letters their value as Roman numerals, we arrive at the date, thus:—

L.	V.	D.	M.	C.	V.	L.	V.	V.	V.	V.
50	5	500	1,000	100	5	50	5	5	5	5

the total being 1730, which, in all probability is the date of manufacture. If any of your readers would care to know what was the composition of the various hodies indicated on the labels, I would look up the question with pleasure, and let you know in a further communication.

I am, Sir, yours faithfully.

16 Cross Street,
Hatton Garden, E.C.

JOHN HODGKIN.

[The subject is evidently of interest, and we are sure Mr. Hodgkin's further communication would be valued.—ED. C. & D.]

SIR,—I gather from Mr. Huskisson's letter in your issue of last week that he is not aware of the date of the manufacture of the cabinet he describes, and I think this is plainly shown from the inscription on the sundries drawer, this method of writing the date being very common (the precise term for it, however, I have forgotten), thus:—

The inscription is

IN LAVDEM RECEPTACVL TAM SIMPLICIVM QVAM
COMPOSITORVM MEDICAMINVM.

Now let us take out the capitals and assign to them their numerical value, thus:—

L.	V.	D.	M.	C.	V.	L.	V.	V.	V.	V.
50	5	500	1,000	100	5	50	5	5	5	5

Adding these together, we get 1730, which, judging from the labels, should be about the right date.

There is another point which I take the liberty of suggesting, and that is, the possibility of younger chemists with less opportunities of obtaining the actual relics, securing "a counterfeit presentment" of the said cabinet. Cannot Mr. Huskisson allow the cabinet to be photographed? And could not you, sir, present your readers with a reproduction of the photograph? But for the fact that the cabinet would probably require a very long exposure, I should myself be tempted to offer my services to Mr. Huskisson if he would consent to have it photographed. And I would further suggest that the cabinet might well serve as a peg on which to hang a very neat little history of pharmacy of the early

eighteenth century, illustrated by photographs of the cabinet and the contents of some of the drawers. Surely mummy's flesh would be curious, and if a microscopic section of the said flesh were photographed, it would be more interesting still.

Yours truly,
E. J. W.

[Mr. Huskisson has kindly promised that he will try to get a photograph taken of his cabinet for us.—ED. C. & D.]

SIR,—I have a book, the title of which is "The Secrets of the Reverend Maister Alexis, of Picmont, translated out of French into English by William Ward, London, 1595, in Black Letter. I enclose one or two recipes taken from the book, which book I consider valuable as giving an insight into pharmacy in the reign of Queen Elizabeth.

Yours truly,
Market Square, Ramsey, GEO. LOWE WHITEHOUSE.
February 18.

Original in "Black Letter."
Against the Plague.

"Take three ounces of the lieour of the inner rind of an ash tree, and still it with three ounces of white wine, and give the patient drinke of it euerie three heures and within 24 heures he shall be cured."

"For the paine of the loines or haunches.

"Take the root of Iris or Gladiolus and hraie it with quick Brimstone and Beares grease & laie it upon your loines like a plaister and you shall finde it a souereigne remedie."

Original in "Black Letter."

"Round apples, or balles to take out spots of oyle or grease.

"Take purging sope, or soft sope, and incorporate it with the ashes of vines finelie sifted as much of the one as of the other, then putting among the said powder roch alum burned and the drie lees of wine called Tartre wel beaten into powder, incorporate all wel together and make there-of little round apples or halles which you maie use to take out spots of any garment.

Salaries of Dispensers under the Local Government Board.

SIR,—If you think the following correspondence of sufficient importance will you kindly insert it in your next.

The salary of the late dispenser (Mr. Beal) was 165*l.* per annum. The salary of a relieving officer commences at 130*l.*, increasing to 180*l.* per annum. The Bethnal Green Board of Guardians have recently appointed (with the sanction of the Local Government Board) a young man with no previous training (a draper's assistant) as relieving officer, commencing salary 130*l.*, increasing to 180*l.*, thus showing that in the opinion of the Local Government Board ex-draper's assistants when converted into relieving officers should be better paid than licentiates of the Apothecaries' Company of London, or Major and Minor men of the Pharmaceutical Society.

Can nothing be done to remedy this absurd condition of things?

I am, yours faithfully,
309 Hackney Road, N.E., ALFRED P. BARNARD.
February 24.

The correspondence sent with Mr. Barnard's letter may be summarised as follows:—First there is a copy of the minute of the guardians of the parish of St. Matthew, Bethnal Green, recording the death of Mr. Beal, the late dispenser, and a resolution authorising an advertisement for a dispenser "at a salary of 130*l.* per annum, rising 10*l.* annually to a maximum of 150*l.*" The appointment was duly advertised, and the election of Mr. John Suttar was reported to the Local Government Board on January 28, 1891. Then follows a letter from the Local Government Board, acknowledging the information sent by the guardians, and adding: "The Board direct me to draw attention to their letter of September 29, 1886, in which they stated that the rate of salary therein sanctioned was personal to Mr. Beal, and that on the occurrence of a vacancy it should be

reduced to a rate within the Board's scale for dispensers, under which the maximum salary payable to such officers who are not provided with resident allowances is 120% per annum, rising after four years' service to 140% per annum. The Board direct me to inquire what salary the guardians propose to assign to Mr. Beal's successor. To this the guardians replied on February 4, stating what they had agreed to pay, and adding: "As the dispenser does the whole of the dispensing for the out-door medical officers, the Board trust your honourable Board will sanction this salary being paid." The Local Government Board acknowledge this communication on February 16, 1891, and say that they have considered the proposal of the guardians, but regret they are unable to assent to a departure from the scale referred to in their letter of February 2.

Estimation of Glycerine by Alkaline Permanganate.

SIR,—On February 16 I had the honour of reading a short paper before the Society of Chemical Industry upon the above subject, as reported in your issue of February 21. Mr. Allen is also reported to have suggested that what I had been working with was iso-butyric acid—a suggestion which I was not quite prepared to positively contradict, as the acid had been purchased by me from a well-known firm as normal butyric acid, and I had no reason to suspect its impurity, particularly seeing that I had obtained in the experiment 93.64 and 94 per cent. of butyric acid calculated from the oxalic acid found upon oxidation, calculated upon the following equation:—



Considering, also, that iso-butyric acid is only slightly soluble in water—one of acid requiring three parts of water for solution, the normal acid, on the other hand, being soluble to any extent—I think I was justified in naturally concluding that what I was working with was the normal acid. However, to put all doubt at rest, as there was a possibility of its being a mixture of the two acids, I have since subjected a portion of the same acid to the action of dilute sulphuric acid and bichromate of potash, and boiled for six hours, with the result that there was practically no bichromate used up, proving beyond doubt that it was not iso-butyric acid I had been using. The distinguishing test between iso-butyric acid and the normal acid is that the former is easily and readily oxidised into acetic acid and carbonic acid by such treatment. The normal acid, on the other hand, is only acted upon when the sulphuric acid employed is of some considerable strength. Under these circumstances, the accuracy of my results appears to me to be beyond the shadow of a doubt.

Yours faithfully,

February 21.

WILLIAM JOHNSTONE.

Pharmacy on the Riviera.

SIR,—When I was asked to read a paper to the Brighton Junior Pharmacy Association, I had no idea that my audience would extend beyond the narrow limits of the handful of assistants who gathered to hear it read. But it seems the reporter was abroad, and has treated your readers to a very inadequate and misleading account of my paper.

In the first place, he speaks of it as a lecture on "French Pharmacists and Pharmacy." The name I gave it was "Impressions of France and French Pharmacy," and at least half of the paper was devoted to the discussion of matters quite outside the range of pharmacy.

Then speaking of the French diplomas, your reporter makes me say that the aspirant has to follow "three courses of instruction." What I did say was, that he has to take a three years' course of instruction in a school of pharmacy, the charges for which, including all the examination fees, amount to about 55% for the "first-class" pharmacien and about 45% for the "second-class" man; the former being allowed to establish himself in any part of France he may desire, but the latter only in the department or district represented by the particular school of pharmacy at which he pursued his studies.

I did not say, as your indignant correspondent implies, that the Englishman would find the fees ridiculously low. In paying 48% as "Pharmacien" says he did, he was prac-

tically charged for the course of instruction which he was exempted from undertaking, and, of course, the amount seemed very high.

I did not mention embalming in my paper, for the simple reason that I did not accurately remember the charge. When questioned afterwards on the subject, I said I thought the fee was about 500 francs. I am glad to learn from "Pharmacies" that I was considerably under the mark.

I will now proceed to justify myself against the other charges of wilful misrepresentation brought against me by your correspondent.

I am perfectly well aware that there are many well-appointed pharmacies in the South of France. The fact that many of them are owned, in whole or in part, by Englishmen, makes it a foregone conclusion that they should be so. Several that I can recall are as fine and elegant as any to be met with in this country. Frequently, too, you find a Frenchman with sufficient enterprise to compete in attractiveness with his English rivals, and who models his pharmacy on the English style. In fact, the Frenchman who does not thus enter into competition stands a very poor chance of getting any English connection at all. Now it so happens that I was employed by a French pharmacien of this latter class, and his pharmacy was, as far as I am able to judge, typical of French pharmacies in general. As such, I described it; I did not put it forth as representing the Anglo-French establishment of the Riviera. "Pharmacien" himself will, I feel sure, agree with me that the general effect of the ordinary French pharmacy in any ordinary French town is dingy in the extreme.

As for the French assistant, my acquaintance with him was, happily, of very much shorter duration than that of your correspondent. I described him, as nearly as possible, as I found him, and, what is more, I never met an English assistant whose verdict on the subject did not coincide pretty closely with my own. But, naturally, in the course of a ten years' residence in France one would get so accustomed to the prevailing order of things that gradually one's eyes would be closed to the defects and shortcomings which at first sight seemed so glaring. In short, one would come to regard them with French rather than with English eyes.

Yours truly,

Brighton.

C. S. ASHTON.

Tinct. Quinin. Ammoniata.

SIR,—Permit me to explain, in connection with the meeting of the Midland Counties Chemists' Association, at which this subject was discussed, that my proposal to substitute carbonate for solution of ammonia was not made with the view of rendering the making of this preparation more easily accomplished. Though the method of manipulation proposed by Mr. Adcock would doubtless facilitate the rapid solution of the quinine, the tincture would still be far less miscible with water, much less palatable, and, on account of the action of the ammonia hydrate in colouring most spirits, greatly less elegant, than the carbonated solution proposed by me. As a matter of fact, heat is necessary for the solution made with the carbonate, so that, whatever the "Review of the Year" implied, an easier mode of preparation was not thought of.

20 Queensferry St., Edinburgh.

GEORGE LUNAN.

That Sixpence.

SIR,—I want to know whether the enormous parliamentary influence in Bloomsbury Square is to be used to get that sixpence a gallon off the cost of our tinctures, &c.

As you know, this amount was imposed for the express purpose of providing a fund to buy out the publicans' licences, and, as that is now abandoned, there should be no great difficulty in the way; but the time is drawing near for putting the Chancellor of the Exchequer under the Bloomsbury Square tincture-press. I expect to see your correspondence columns full of this, as I am not the only one who

"WANTS TO KNOW, YOU KNOW." (115/33.)

Does Anyone Doubt It?

SIR,—Enclosed you will find postal order for next year's subscription.

It may interest you to know that an advertisement in

the Exchange column taken advantage of has more than once paid our year's subscription, and your Market report has frequently been the cause of a traveller amending (in our favour) a quotation.

If you publish the above you need not put our name, although, if required, we would verify the statement by letter should any inquirer write us.

Truly yours,

(115/33.)

LEGAL QUERIES.

250/22. *R. W. R.*—We should consider that you express the general tone of chemists towards the Pharmacy Bill as it stands, neither objecting nor approving. But the serious point is, that if this Bill should pass it practically shuts off any chance of more useful legislation for another twenty years or so.

248/57. *Alpha.*—You can register your labels at Stationers' Hall (Stationers' Hall Court, E.C.). You must make application on a form costing 6d., and pay 5s. fee for each. This registration does not give you any trade-mark protection, and, unless your labels contain some literary matter of undoubted originality, it is doubtful whether it could be of any use whatever.

250/25. *Cymro.*—The sale of arsenical sheep-dips by unregistered persons can only be prevented by the Pharmaceutical Society; and we presume they consider that they would not be justified in employing the powers conferred on them by the Pharmacy Act in such a manner. If an arsenical sheep-dip is sold by anyone not properly labelled as required by the Act the vendor can be prosecuted for that offence by anyone.

250/30. *Kola.*—It is not legal to sell as vaseline any substance not made by the proprietors of that registered trade-mark.

250/68. *Veritas.*—No one can now get on the Register of Veterinary Surgeons except by going through a three-years' curriculum and passing the examinations of the Royal College.

250/74. *J. T.*—A limited company must add the word "limited" to their registered title on all labels, circulars, &c., wherever it is used.

MISCELLANEOUS INQUIRIES.

Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.

243/56. *D. & C.*—The wicks of snuffless candles are prepared by dipping in an aqueous solution of borax, then drying.

244/42. *Nemo.*—(1) **Salicylic Corn Cure** :—

Salicylic acid	30 grains
Extract of Indian hemp	5 "
Ether	1½ drachm
Flexible collodion	4 "

Put the acid and extract into a 1-oz. phial, add the ether, and shake well. When dissolved, add the collodion, and mix.

(2) Salt of lemon is not a scheduled poison.

244/60. *C.*—(1) **Liquor Opii Sedativus.**—The following formula is the most reliable you can have :—

Opium, B.P.	2 oz.
Slaked lime	2 drachms
Rectified spirit	5 oz.
Sherry	1 "
Water, a sufficiency.	

Boil the opium, cut into small pieces, with the lime and the water for half an hour, then allow to cool. Make up to 14 oz. with water, add the spirit and the sherry, and set aside for a week. Then filter, press the marc and add proof spirit to make 20 oz.

This liquor is all the better for being kept for six months, the odour of it improving. (2) The British Medical Association, Strand, London, W.C.

244/65. *Menthol.*—(1) We do not know. (2) Solution of iodine—if exposed to the light.

244/64. *Lindum.*—(1) We cannot find any formula for **Vinum Belladonnæ**, but you cannot be wrong in making one from the leaves with sherry, strength 1 in 20. (2) The makers of soluble essences who advertise in this journal can supply you with the essence.

244/57. *W. L.*—We question if you can get bismuth salts which do not give the peculiar breath to patients taking them. It is known as the "bismuth breath," but is really due to the presence of infinitesimal traces of tellurium.

245/74. *Fraternity.*—Schemes of wholesale co-operation among chemists have been attempted several times without success. We are not able just now to spare space for the introduction of a discussion on such a theme.

One Solution Developer, P. 253.—In this formula sodium sulphite is intended, not sulphate, as erroneously printed last week.

202/91. *Asthma.*—See our issue of December 6, 1890, p. 798, for an asthma cure.

244/25. *Tuberculosis.*—Asbestos cloth and granular animal charcoal are the media employed, we understand.

246/41. *D. E.*—(1) The prescription has been quoted more than once, but never explained. The intention is for the advertiser to supply the medicine at 16s. a bottle. It is that which pays. (2) We cannot at present trace the reference to the apparatus, but when we find it we shall let you know. (3) There is nothing to make black hair grey; bleaching makes it golden only.

246/56. *Cuscara.*—Infusion of coffee is used for making curtains of that colour, and it appears to suit well. We cannot undertake to provide names for specialities.

246/73. *Nemo.*—Balmain's paint is the only thing which meets your requirements. This is the subject of a patent. It is absolutely necessary that luminous paints should be exposed for the greater part of the day to diffused sunlight, otherwise they cannot give out light for more than a few hours. A permanent luminous paint is unknown, and, as far as our knowledge of light at present goes, impossible.

246/69. *Deronia.*—Arsenic is unnecessary for killing weeds in garden paths. Salt is the best thing. If you wish to use arsenic, an ounce of it to the gallon, with the same quantity of hydrochloric acid to the gallon, will suffice.

247/71. *Spirits.*—You cannot do better than consult Allen's "Commercial Organic Analysis."

246/53. *Nemo* (Lewes).—Soothing and Teething Powders (without calomel).—Bromide of potassium, $\frac{1}{2}$ grain; nitrate of potash, $\frac{1}{2}$ grain; dill sugar, 1 grain. Mix. This to make a dose for a child of from three to twelve months old. Dill sugar is made by mixing together well: oil of dill, 10 minims; calcined magnesia, 90 grains; and powdered sugar, 1 oz.

247/68. *A. M.* is about to refit his shop, and he asks us "What the general opinion of chemists is, and our own opinion, with regard to recess-label bottles, and what are their advantages, as he has heard several chemists speak against them."

[Opinions differ regarding recess-label bottles. It was at first expected that they would displace gold labels; but this they have not done, probably because the labels were only attached in the first instance to moulded bottles, which were rather thin and wanting in finish. Now they are much better, more durable, and, on the whole, those who have experience of both prefer the glass labels, as being more legible and always fresh-looking. But the vitrified labels are now being better appreciated. They have an advantage over the glass ones in that they do not crack. We shall be glad to have the opinions of others on this subject.]

247/74. *Archer*.—We should judge from what you say that there is some inflammation at the root of the tooth. Have you tried the effect of cocaine as an obtunder?

247/67. *J. W. Cawnt*.—We should think that oil of lavender is intended. The recipe appears to be a translation of a French one.

247/65. *Chemicus*.—Very few salicylate mixtures do not become of a red colour. The change is understood to be due to the impurities in salicylate of soda, as the pure salt gives permanently colourless mixtures.

248/6. *T. F. Walker*.—The B.P.C. formula for syrup. ferri phos. co. is a good one. This is what is known as **Parrish's Syrup**. The following formula provides a palatable, but weaker syrup:—

Ferri sulphatis	5 oz.
Sodæ phosphatis	6 "
Calcii chlorid. crystal.	8 "
Sodæ phosphatis	8 "
Potassæ carbonatis	2 drachms
Sodæ carbonatis	2 "
Liquor. cochl. q.s. to colour.	
Acid. phosphoric. (syrupy, s.g. 1.500)	15 oz.
Sacchari granulat.	32 lbs.
Aque flor. aurantii	2 pints
Aque	16 lbs.

Form ferrons phosphate by dissolving the salts separately in boiling water, mix together, neutralise free acid with sodium carbonate, strain through felt, wash and squeeze precipitate strongly. Treat the calcium chloride with sodium phosphate in same manner, omitting the addition of sodium carbonate. Transfer the precipitates to a mortar, pour upon them the phosphoric acid, and dissolve by stirring; now add the sodium and potassium carbonates, and filter. Have a syrup made with the proportions of sugar and water above stated, add to it the filtered solution, the orange-flower water, and sufficient cochineal solution to give the desired colour.

245/49. *Denver*.—You will require to undergo examination in Colorado, but the Minor certificate will be accepted as evidence that you have had four years' experience. The examination is not difficult. The Secretary of the College of Pharmacy, Mr. J. Kochan, 15th and Latimer Streets, Denver, will give you more precise information. The condition of pharmacy in the United States is much the same as it is here.

248/40. *T. B.*—All the principal wholesale houses undertake analysis. The determination of the constituents of an ointment might cost from 2*l.* 2*s.* to 5*l.* 5*s.*, according to the amount of work involved, and even then there would be some guessing as to the nature of the constituents of organic origin.

248/57. *Alpha*.—Sometimes, shaking turpentine which has become rust-coloured with a little coarsely-ground bone-black "cures" it. If this fails, shake with an ounce of hydrochloric acid and 3 oz. of water to the gallon. Allow to settle, decant, and wash with a pint of plain water.

232/91. *R. H. W.*—Read the **Dentistry** article in our DIARY for 1890. For general operations you may consult Fillihrow's "Text-book of Operative Dentistry" (Ash & Sons, 10*s.* 6*d.*).

249/39. *Wild*.—(1) The acid can only be dissolved by converting it into a salt with soda. (2) Sperm oil will only mix with water by emulsification. Resin soap would probably suit your purpose best. See our issue of March 15, 1890, p. 352.

249/42. *Sum*.—"Lectures for Pharmacists" were commenced in our issue of February 22, 1890. The competition regarding "Chemical Magic" was reported in December, 1860.

250/24. *E. W.*—We fully expect to have our book on **Veterinary Counter Practice** ready for sale in the course of March. You will find all you want in it.

115/29. *A. S.*—Vapor Pini Sylvestris, T. H.—Fir-wood oil, 2 drachms; light carbonate of magnesia, 1 drachm; water, to 3 oz. Mix. A teaspoonful to 1 pint of water at 140° F.

250/39. *A. B. C.*—We do not know.

Trinitrin.—In our report of the North British Branch last week it was erroneously stated that in Dr. Stockman's book the author mentions that trinitrin is a nitrite of glycyl, and not a nitrate. It is the opposite way in the book.

246/65. *Attentive German Reader* (Leipzig) directs attention to an error in the last Corner for Students (page 222). "The yellow colour of the liquid got by adding ammonia to the condensed chlorochromic anhydride," he says, "is owing to the formation of ammonium chromate (not chlorate)." The Fatherland scores one this time.

BROMINE IN THE UNITED STATES OF AMERICA.—The most important bromine-works in the United States are at Canal Dover, Ohio. These were opened in 1871, and last year the output of the works was 200,000 lbs., only 110,000 lbs. coming from the other works in Western Pennsylvania, Western Virginia, and Michigan. Bromine is a by-product of the salt industry, occurring in the form of bromides in the bittern. The proportion between the bromides and salt differs in different localities. At Canal Dover, O., from 1877 to 1887, there were produced 222,669 lbs. of bromine and 259,350 barrels of salt, or about 6 lbs. of bromine to 7 barrels of salt. In the Pomeroy district the proportion was 1 lb. of bromine to 2 barrels of salt. To produce the bromine about half-a-million pounds of pyrolusite are required. In Michigan potassium chlorate is used as the oxidising agent, as the bittern there contains a large proportion of calcium chloride. Potassium chlorate requiring less sulphuric acid, the deposit of calcium sulphate is not so great when it is used, so that it gives less trouble.

HONEST SOAP.

FROM

Dr. REDWOOD, Ph.D., F.I.C., F.C.S., &c.

Professor of Chemistry and Pharmacy to the Pharmaceutical Society of Great Britain.

"Being authorised by Messrs. Pears to purchase at any and all times, and of any dealers, samples of their Transparent Soap (thus ensuring such samples being of exactly the same quality as is supplied to the general public), and to submit same to the strictest chemical analysis, I am enabled to guarantee the invariable purity of this soap.

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"The perfumes introduced are pure, agreeable, and perfectly harmless.

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"My analytical and practical experience of PEARS' SOAP now extends over a very lengthened period—nearly fifty years—during which time I have never come across another Toilet Soap which so closely comes up to my ideal of perfection; its purity is such that it may be used with perfect confidence upon the tenderest and most sensitive skin—even that of a *new born babe.*"

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Possesses digestive power ten times greater than the best Pepsin in the market; digests fibrin and casein, emulsifies fats, converts starch into glucose. A combination of all the digestive principles with the nutritive qualities of Malt Extract and the nerve-invigorating properties of the Acid Phosphates.

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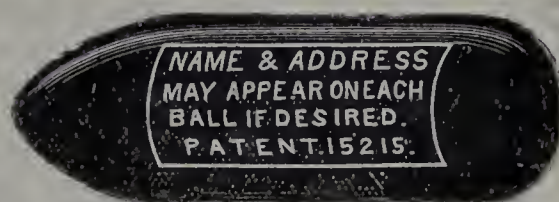
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WAEDENSWEIL.

Sugar of Milk. Lactic Acid.

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Acetate of Lead.

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Declared by the highest medical authority in this country to effect sound and comfortable sleep better than any of the Hypnotics which have been introduced during the last few years.

DOSE, FROM 30 TO 50 GRAINS.

Important to Dispensers.—Tell the patient to dissolve the Chloralamid in Whisky or Brandy, and afterwards add cold water to taste.

DO NOT APPLY HOT WATER TO DISSOLVE OR THE PREPARATION WILL DECOMPOSE.

Full particulars for Medical Practitioners and Dispensing Chemists, giving also interesting Clinical Reports, will be sent Post Free.

This Preparation, securing sleep without any ill effects, neither interfering with the activity of the heart, respiration, temperature, digestion, or urine secretion, will not fail to be the most favourite Hypnotic of the future.

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Doz. Coca Medium (Imperial Pints)	36/	Retail price	...	48/	doz.	
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„ „	26/6	Pints,	33/	„		
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„ Coca Lozenges	13/6	Box,	18/	„		
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If order be sent to us direct and remittance enclosed, we offer a discount of $2\frac{1}{2}$ per cent. single dozen (not less) and 5 per cent. on 3 dozen lots; carriage paid England and Wales, and half Scotland and Ireland.

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ARE NOW OFFERING THEIR

STRICTLY PURE

Sandal Wood Oil

Manufactured on the spot with the latest ENGLISH Machinery, by ENGLISHMEN, and in an ENGLISH Colony. The Oil is guaranteed absolutely pure.

It is put up in Sealed Bottles and small Cases, suitable for all markets.

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Can be obtained from all the WHOLESALE HOUSES, and also in original packages, from the
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HEWLETT'S MIST. PEPSINÆ CO. C. BISMUTHO.

Highly recommended in various forms of dyspepsia, having a direct action upon the mucous membrane of the stomach and intestines as a sedative. It can be administered with marked and almost instantaneous effect in the irritative form of dyspepsia more especially when *pyrosis* is a conspicuous symptom, and pain occurs an hour or more after food. In simple neuralgic gastric pain following eating, occurring in feeble subjects, it is especially indicated, and even in *carcinoma* it has been used with great success in alleviating pain and vomiting.

In the dyspepsia of patients dependent upon some organic disease, and where there is a decided loss of nerve power, it is of singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, with slight pain at the epigastrium, evident signs of general relaxation and loss of nerve power, clinical experience has shown that it is of great service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerve centres. Be these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic, anti-dyspeptic, and tonic, in general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhoea, connected with atony of the visceral muscular coat, the Mist. Pepsinæ Co. c. Bismutho is a very valuable remedy. In the *exhausting purging of Phthisis*, accompanied with night sweats and restlessness, Dr. MATHEWS, of Nantwich, has used it with marked and appreciable effect.

Price (in England) 10s. 6d. per pound.

Physicians will oblige, when ordering Mist. Pepsinæ Co. c. Bismutho, by writing Mist. Pepsinæ Co. (Hewlett's).

Packed (for Dispensing only) in 10-oz., 22-oz., 40-oz., and 80-oz. Bottles.

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MISTURA PEPSINÆ COMPOSITA CUM BISMUTHO.

“This combination of Messrs. HEWLETT is one which has been extensively tested, and with good results. It is justly popular in the profession as a very valuable and effective combination. It serves not only to improve appetite, but to lessen the gastric pain and to facilitate difficult and painful digestion, without setting up any evils of its own. It is a very good crutch for persons of weak stomach to lean on.”—January 15th, 1881.

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MANUFACTURING CHEMISTS,

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[Established 1832.]

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the Inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Olifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	York
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	Edinburgh
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Sang & Barker,	"
Oox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sanger, J., & Sons,	London
Curling & Co.,	"	Hopkins & Williams,	"	Sim, James, & Co.,	Aberdeen
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Smeaton, W.,	Leeds
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Southall & Co.,	Birmingham
Dobbin, W., & Co., Limited	Belfast	Hunt, A., & Co.,	"	Sutton, W., & Co.,	London
Drew, Barron & Co.,	London	Johnson, J. H. & B.,	Liverpool	Tomlinson, Hayward & Co.,	Lincoln
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Treacher, Hodgkinson & Co.,	London
Dunn & Company,	"	Lynch & Co.,	"	Westrup, J. B.,	Kensington
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westwood & Hopkins,	London
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Woolley, James,	Manchester
Evans, Leecher & Webb,	London	Maw & Son,	"	Wyles & Brown,	Coventry
Ferris & Co.,	Bristol	Meggison & Co.,	"	Yates & Co.,	London
Foulger, S., & Son,	London	MacKay, John, & Co.,	Edinburgh		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

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ENSURES SPEEDY AND EFFECTIVE RELIEF IN ALL CASES OF

Influenza, Coughs, Colds, Catarrh, Hay Fever, Asthma, Bronchitis, Sore Throat, and Nasal and Throat Affections generally.

In an article upon "Menthol in Acute Cold in the Head and other Affections of the Nose and Throat," in the *Medical Press*, January 8th, 1890, Mr. Lennox Browne, F.R.C.S., states:—

"But by far the most convenient method for personal use is to carry always the ingenious Pocket Menthol Inhaler known as Cushman's, which should be used not only on the first approach of an attack, but three or four times a day during an epidemic, and always in cold-catching weather by those subject to head colds."

Used in the Central London Throat and Ear Hospital, and recommended by many leading Physicians.

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Kola Chocolate ...	1/- 2/- 3/6 each.	8/9 16/- 30/- per doz.
Kolatina ...	1/- 2/- 3/6 "	9/- 18/- 33/- "
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Kola Cocoa ...	1/6 2/6 5/- "	12/- 24/- 48/- "
Kola Cordial ...	2/9 4/6 "	26/- 42/- "
Kola Lozenges ...	1 1/2 2/9 4/- "	9/6 23/- 34/- "
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We also still supply the Kola Chocolate, 1/6, 2/6, and 5/-.

Trade 12/-, 24/-, and 48/-.

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The VINACOCA is carefully prepared from the best Coca Leaf only. (No addition of Cocaine.)

ONLY ONE WINE (CHOICE MADEIRA)
ONE QUALITY (A1)
ONE PRICE } **THE BEST & CHEAPEST ON THE MARKET.**

VINACOCA is a direct stimulant of the most active kind, supporting life in a manner almost miraculous, without disturbance of the vital functions. For the voice, a wineglassful before any ordeal is sufficient. Its effect upon the vocal cords is surprising, and of great value to Public Speakers, Professional and other Singers, and Lecturers.

Sold in Bottles at 3s. 6d. each, or 40s. per dozen, Retail. Usual Trade Discount.

Pamphlets for distribution, carriage paid.

COCA is prepared in various forms: COCA LOZENGES, COCA TABLETS, COCA ELIXIR, COCA TEA, COCA CHOCOLATE, STAMIN (Coca and Beef Extract), COCA TOBACCO, &c.

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MELBOURNE, 1880; AMSTERDAM, 1883; SYDNEY, 1888; **Medals**
PARIS, 1889.



The names and weights of the active substances are printed very clearly on each pill or granule. The object of an easily read inscription, such as this, is to obviate those errors which may so easily occur in handling ordinary granules. The seriousness of such mistakes is a direct consequence of the action of the substances employed. The inscription gives every security both to the invalid and the doctor. The process of manufacturing printed pills and granules makes it possible to obtain absolute homogeneous masses, in which the active principles are uniformly distributed and mathematically dosed. The covering is of a nature which preserves the most changeable medicaments, such as iodide of iron, in all climates. All our various pills and granules are further distinguished by the colour of their covering. The printing is done by means of lampblack, and the colouring matter employed for the coverings is entirely of a vegetable nature.

EXTRACT FROM PRICE LIST FRENCH PHARMACOPŒIA.

NAMES OF SUBSTANCES	Weights		Prices	NAMES OF SUBSTANCES	Weights		Prices	NAMES OF SUBSTANCES	Weights		Prices
	French Milligram	English Grain			French Centigram	English Grain			French Centigram	English Grain	
Amorphous Aconitina ..	1/2	1/120	8	Acetate of Morphia ..	1	1/6	1 3	Codeina	1	1/6	1 8
Crystallised Aconitina ..	1/10	1/600	8	Salicylic Acid	10	1 2/3	0 7	"	2 1/2	5/12	2 0
Arsenate of Soda	1	1/60	6	Aloes	10	1 2/3	0 7	"	5	5/6	2 10
Arsenate of Strychnia ..	1/2	1/120	8	"Anderson's" or				Ergotina	1	1/6	0 10
Bi-chloride of Hydrar-				"Sootch Pills"				"	5	5/6	0 10
gyrum	1	1/60	6	Benzoate of Lithina ..	1	1/6	0 8	"	10	1 2/3	0 10
Bi-iodide of Hydrar-				Bromhydrate of Quinina	5	5/6	1 3	"	15	2 1/2	0 10
gyrum	1	1/60	6	"	10	1 2/3	1 8	Extract of Belladonna ..	1	1/6	0 7
Colohicina	1/2	1/120	8	"	15	2 1/2	2 0				
Acetate of Morphia ..	1	1/60	7	"	20	3 1/3	2 6	Amorphous Quassina ..	1	1/6	0 8
Hydrochlorate of Morphia	1	1/60	8	Bromide of Camphor ..	1	1/6	0 7	"	2	1/3	0 10
Phosphoric Acid	1	1/60	8	"	5	5/6	0 8	Santonina	2	1/3	0 7
Phosphuret of Zinc	1	1/60	8	Caffeina	1	1/6	1 3	"	5	5/6	0 8
"	2	1/30	8	Calomelas	1	1/6	0 7				
"	4	1/15	8	"	5	5/6	0 7	Sulphate of Quinina ..	5	5/8	1 3
Picrotoxina	1	1/60	8	Hydrochlorate of Quinina	5	5/6	1 3	"	10	1 2/3	1 8
Crystallised Quassina ..	1	1/60	8	"	10	1 2/3	1 8	"	15	2 1/2	2 0
Extract of Strophanthus	1	1/60	10	"	15	2 1/2	2 0	"	20	3 1/3	2 5
Sulphate of Strychnia ..	1	1/60	8					Sulphate of Sparteina ..	2 1/2	5/12	0 10

The preceding list comprises only a very small portion of the Pills and Granules prepared by the Firm of L. Frère. Their complete Catalogue contains the various formulæ of the French Pharmacopœia, also the leading ones of the British Pharmacopœia, as follows:—

BRITISH PHARMACOPŒIA				BRITISH PHARMACOPŒIA			
PRICES				PRICES			
	Per Gross	Per lb.	Per Bottle of 50 pills		Per Gross	Per lb.	Per Bottle of 50 pills
Aloes Barb. P. B. gr. iv. ..	s. d.	s. d.	d.	Ferri Carb. P. B. or "Female Pill" ..	s. d.	s. d.	d.
Aloes and Ferri P. B. ..	1 0	10 0	4	Blue Pill P. B. ..	1 0	8 0	4
Aloes and Myrrh. P. B. ..	1 2	10 4	5	Rhei Co. P. B. or "Compound Rhubarb"	1 0	10 0	4
Asafoetida Co. P. B. ..	1 7	12 0	6	or "Antibilious Pill" ..	1 4	12 0	5 1/2
Calomel Co. P. B. or "Calomel Pill" ..	1 4	10 4	5 1/2	Aperiens gr. 1/4 6,000 per lb. ..	1 0	10 0	4
Colocynth Co. P. B. or "Colocynth Pill" ..	1 2	10 0	5	Podophyllin ..	1 2	20 0	5
Coloc. and Hyos. P. B. ..	1 8	16 0	6 1/2	Aeld. Arsenios gr. 1/60 ..	1 0	10 0	4
Ferri Iodid. P. B. gr. iii. ..	1 7	13 0	6	Atropia gr. 1/60 ..	1 4	32 0	5
	1 8	16 0	6 1/2	Digitalin gr. 1/60 ..	1 4	28 0	5

The above are the principal pills in daily use, and those P. B. are made in strict accordance with the formulæ of the British Pharmacopœia. In proportion with the demand, other kinds will be added to our list, at equally low prices.

NOTE.—Beyond the pills and granules mentioned in our price list, we manufacture to order any kind of pill or granule of which the formula may be confided to us, with whatever inscription the client may select. These special orders cannot be undertaken for a less quantity than two kilograms (4 lb. 7 oz.). It is also necessary to give (1) the colour selected for the covering, (2) the inscription written very distinctly. This lettering cannot occupy more than 18 European letters. The spaces between the words count as a letter. For the Hindoo languages the number of letters may vary according to the form of type. The price for manufacturing is 18 francs (14s. 4d.) per kilogramme (2 lb. 3 oz.) of pills covered. Our customers can have the raw materials sent to us by a wholesale drug house, or we will undertake to supply them. It is hardly necessary to add that an absolute discretion is guaranteed. The Granules comprise the doses of active principle for 1/8 milligramme, up to one centigramme exclusively. The Pills comprise all the other doses. Each bottle of Granules contains one hundred granules, viz.: 8 doz. 1/2. Each bottle of Pills contains fifty pills, viz.: 4 doz. 1/2.

A Complete Catalogue is forwarded Free on Application.

MORRIS & CALLARD,

PONTAMMAN CHEMICAL WORKS,
AMMANFORD, R.S.O., CARMARTHENSHIRE,
MANUFACTURERS OF

ACETIC ACID, P.B., ACETIC ACID FORT., SP. GR. 1-040,
ACETATE OF SODA,
PURE WOOD NAPHTHA, SULPHURIC ACID, & CHARCOAL

Telegraphic Address: "CALLARD, AMMANFORD."

PRICES AND SAMPLES ON APPLICATION.

LOFTHOUSE & SALTMER, MANUFACTURING CHEMISTS, WHOLESALE AND EXPORT DRUG MERCHANTS, HULL,

Manufacturers of all Pharmacutical Preparations on the best and most improved principles. Quotations on Application.

DEALERS IN PURE CHEMICALS

For Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot Otto de Rose, and all Essential Oils; Valentia Saffron; Vanillas; Fruit Essence; Carmine; Aniline Dyes; Bees' Wax, &c., &c.

Special Agents for Sicilian Sublimed Sulphur in 2-cwt. bags, and Rolled Sulphur in 3-cwt. ca.ks. Most Favourable Quotations can be given on application.

TOWLE'S CHLORODYNE

In COUGHS, ASTHMA, BRONCHITIS, INFLUENZA, &c., its effects are truly wonderful, immediately relieving the tightness of the Chest, allaying irritation of the throat, promoting Expectoration, and speedily and effectually subduing the Cough.

It soothes the weary aching of CONSUMPTION, relieves the harassing Cough, and often prevents those sleepless nights so trying to the sufferer.

In CHOLERA, DIARRHOEA, DYSENTERY, &c., it has proved itself a most valuable specific, quickly relieving the pain and spasms, and seldom failing to check the disease; for which property, as well as for its value in Sea Sickness (for which it is the best remedy known), it should be an indispensable article in every emigrant's outfit.

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"Superior to every other I have tried."
F. H. GREEN, M.R.C.S.
Rochdale Dispensary.

"Peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections."
ALFRED ASPLAND, F.R.C.S.
Consulting Surgeon to Ashton Infirmary.

"I have used it largely in Spasmodic and Painful Affections, Bronchitis, and Neuralgia. It has the property of being readily combinable in ordinary prescriptions—an advantage over all similar preparations."

R. TRAFFORD WHITEHEAD, M.R.C.S.

A Surgeon writes:—"In Diarrhoea, Colic, Ague, Spasms, I have found it relieve more pain and cause more joy than any other article that can be named. Has proved itself a specific against sea-sickness."

"Island Bridge, Dublin.

"I am pleased to say that although I have not finished a quarter of the bottle (2s. 9d.) the pain has left my chest, and the cough is almost well."—J. BROWN.

Immediately Relieves
**COUGHS,
CONSUMPTION,
ASTHMA,
BRONCHITIS,
TIC,
SPASMS,
HYSTERIA,
DIARRHOEA,
DYSENTERY,
CHOLERA,
CRAMP, AGUE,
Sea-Sickness, &c.**

REVISED PRICE LIST.

		Retail.	Per doz.
Towle's Chlorodyne..	.. .. .	1 1½	0 8 6
Ditto .. .. .	.. .. .	2 9	1 3 0
Ditto (3 fluid oz.) ..	.. .. .	4 6	1 16 0
Ditto (8 " ) ..	.. .. .	11 0	4 13 0
Liq. Chlorodyne (Original and only Genuine)	1 lb.	2/6 each	For dispensing purposes.
Ditto ditto	1 lb.	4/6 "	
Ditto ditto	1 lb.	8/- "	
Winchester Quarts (6 lb.)	7/6 per lb., bottles free.		
Towle's Antibilious Pills ..	.. .. .	1 1½	0 8 6
Ditto .. .. .	.. .. .	2 9	1 3 3
Towle's Chlorodyne Lozenges }	.. .. .	0 7½	0 5 6
Ditto Jujubes }	.. .. .	1 1½	0 8 0
Ditto in bulk, bottles free, containing	1 lb., 2/9 each.		
Ditto ditto	1 lb. 10 oz., 4/6 "		
Ditto ditto	4 lb., 10/- "		
N.B.—The Commissioners will allow them to be sold by the retailers without further duty, provided they are simply wrapped in paper, and not enclosed in a box, bottle, or packet.			
Thornton's Celebrated Toilet Cream ..	.. .. .	1 0	0 9 0
Ditto .. .. .	.. .. .	1 6	0 14 0
Ditto .. .. .	.. .. .	2 6	1 4 0
Ambeline (Registered Trade Mark) ..	.. .. .	2 6	1 4 0
The Thornton (Red) Lotion (Stamped) ..	.. .. .	2 6	1 4 0
Thornton's Paragon Hair Wash ..	.. .. .	1 0	0 9 0
Ditto .. .. .	.. .. .	2 6	1 4 0

Posters, Bills, and Showcards on application.

£5 worth (assorted or otherwise) Carriage Paid.

7 lb. Lozenges and upwards stamped with Chemist's own name, free of charge.

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CAPSULE
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 quel que soit la signature
 de M^r MARIANI
DOSE:
 Prendre a Bordeaux avant
 les repas principaux
 pour les Enfants
 la verite Madece est suffisant
MARIANI
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 as per
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DOSE
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 before or after the principal
 meats, and for Children
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Substitute for Iodoform. **Odourless, easily soluble, quite inoffensive. No injurious secondary effects. Easy application in any form, e.g.,** Dusting Powder, either pure or with Talc, Ointment with Lanoline, Sozoiodol Cotton and Gauze, Bougies, Watery Solutions of different Concentrations, Collodion, etc.

Great success obtained in **antiseptic surgery, skin diseases, in the most various diseases of the nose, pharynx, and larynx; in chronic processes of inflammation of the auditory organs, and the superior respiratory passages, in tuberculous ulcerations, especially in the throat; in diseases of the eye, in gonorrhoea, in the treatment of gynaecological cases, in disorders of the stomach; in articular rheumatism and other forms of this disease; in cancer, in diabetes mellitus, and in many other diseases.**

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Retail	Per doz.	Retail	Per doz.	Retail	Per doz.	Retail	Per doz.
4/6..Alcool de Menthe	41/6	4/6..Capsules Matiao	35/	9/..Laville's Gout Tincture	81/	2/9..Rabuteau's Syrup Ferrug	24/6
2/9..Ditto ditto	21/	4/6.. " Mathey Cayins	35/	9/.. " Pills	78/	4/0..Racahout des Arabes	31/
2/9..Anbergier's Syrup	27/	4/6..Chassaing's Wine	39/	1/1 1/2 Papier Fayard	6/9	4/6..Reynal's Bougies	38/
1/9.. " Pâte	15/	2/9.. " Pills	24/	2/3.. " Ditto	13/6	2/9..Ricord's Injection	24/
6/6..Bay Rum	57/	4/6..Olin's Dragées Bromide Cam.	45/	2/3..Papier Fruneau	14/6	4/6.. " Capsules	36/
3/6.. " Ditto	31/	5/..Eau de Botot (Genuine)	40/	4/.. " Ditto	24/6	9/.. " Syrup	90/; 4/6; 42/
2/..Belloc's Charcoal	15/	3/.. " Ditto	24/	1/9..Pâte d'Anbergier	15/	1/6..Star Paper	11/
1/9.. " Lozenges	15/	2/..Espio's Oigarettes	13/6	1/9.. " de Berthé	15/6	1/9..Vallet's Pills	14/6
4/6..Blanoard's Pills	32/	4/6..Elixir de Coca (Mariani)	48/	2/9.. " de Coca Mariani	25/	2/9.. " Ditto	23/
2/6.. " Ditto	18/	2/9..Flon's Syrup	23/	1/9.. " de George	14/6	4/6..Velontine (White, Pink, Oim.)	28/
4/6..Brou's Injection	27/	2/9..Gayetty's Paper	9/	1/1 1/2 " Ditto	9/	3/6.. " Ditto	22/
4/6..Bugeand's Wine	36/	2/3..Granules Arsen. Acid	13/6	1/6.. " de Naté	13/6	4/6..Valentine's Meat Juice	34/
3/6..Bully's Vinegar	30/	2/9.. " Iron	14/5	1/9.. " Regnaud	14/6		£19/10 gross.
2/.. " Ditto	14/6	2/9.. " Soda	15/4	7/..Pierlot's Valerian	60/	2/9..Vichot's Trochisques	22/
4/6..Candé's (Lait Antéphil.)	36/	2/9..Grimault's Syrup Lime	24/	2/9..Rabuteau's Dréées Ferrug	24/6	4/6..Vin Mariani	36/
4/6..Copenies Bromide Camph.	45/	2/3..Guyot's Liq. Gondron	18/	7/0.. " Elixir Ferrug	65/		

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[1823.

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Tabellæ Nitroglycerini, B.P. 1885 (Martindale).

By authority of the Medical Council, the compilers of the British Pharmacopœia have adopted and made OFFICIAL Nitroglycerine Tablets, as Manufactured by W. M. during the last ten years.

The Nitroglycerine is in a perfectly fixed solution in Chocolate. The Tablets are palatable, and weigh ONLY 2½ grains each. They are sold at the following prices:—

In Boxes, Retail 2s. 6d. and 4s. 6d. each.

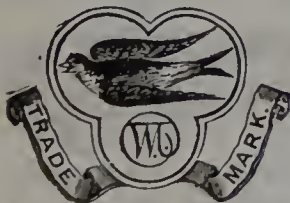
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This is a special preparation, quite different from Spir. Chloroformi P.B., perfectly miscible with water, and always of the same strength.

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Improved Soda Water and Ginger Beer Powders. Genuine Medicines in Stoppered Bottles. Essence of Jamaica Ginger, Chamomile and Ginger, and Peppermint. Celebrated Jamaica Pomatum in Fancy Pots. Sole Proprietors of the Celebrated Prince of Wales' India Sauce and Curry Powder.

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Price Lists free on application.



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Liq. Calcis Iodinatæ.—A solution of Hypiodide of Calcium. Very effective in curing Gout, Rheumatism, Syphilis, Strumous or Tubercular Disease, Goitre, &c. Highly antiseptic and deodorant. Dose—M. v to xx. Price, 4-oz. bottles, 1/2; 8-oz., 2/; 16-oz., 3/6

Liq. Potassæ Iodinatæ.—A solution of Hypiodide of Potassium. An extremely powerful, safe, and unirritating antiseptic. Useful in same diseases as above. Cures parasitic and other skin diseases. Dose—M. v to x. Price, 4-oz. bottles, 1/4; 8-oz., 2/4; 16-oz., 4/.

Red Oxyiodide of Bismuth.—Very superior to Iodoform. Odourless and unirritating. Powerfully antiseptic. Cures wounds, sores, eczema, intertrigo, chapped hands, sweating feet, &c. Price 1/6 per oz.; ointment (1 in 10), 3/6 per lb.

Yellow Oxyiodide of Bismuth.—An excellent antiseptic application to the throat, nose, &c. Very valuable for internal use in cancer of the stomach, gastric ulcer, dyspepsia, vomiting, &c. Dose—5 to 20 grains. Price, 1/4 per oz.; ointment (1 in 10), 3/ per lb.

Leaflets descriptive of above, and monthly price current on application.
Special terms to Hospitals and Public Institutions.

WILLOWS, FRANCIS & BUTLER, WHOLESALE AND EXPORT DRUGGISTS,

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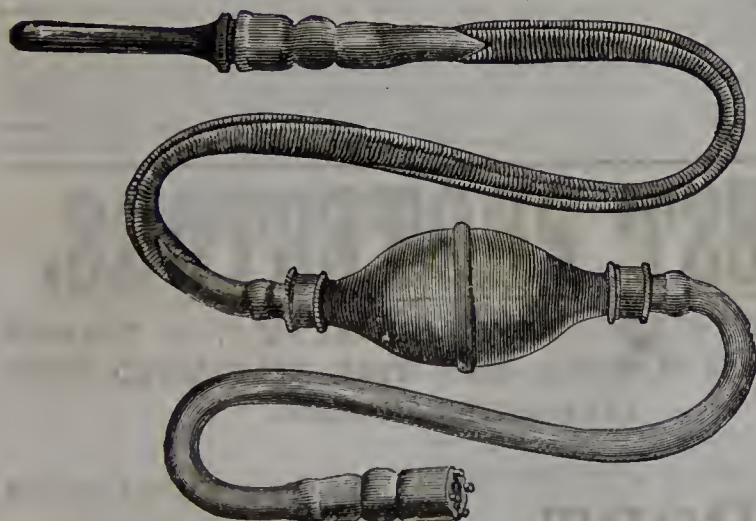
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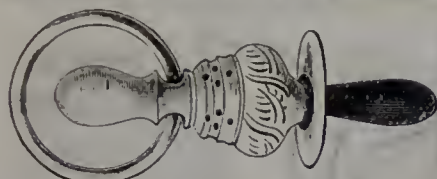
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1/3 dozen.



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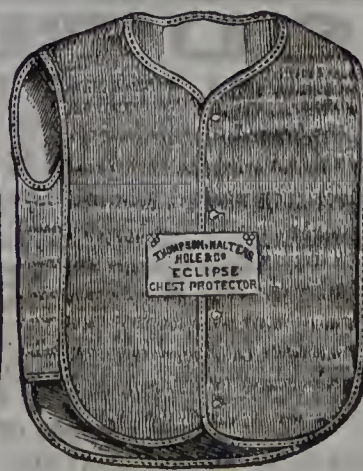
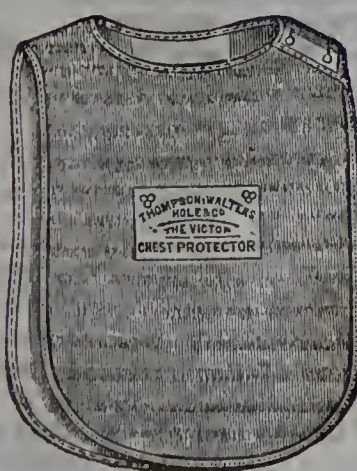
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BUYERS CANNOT DO BETTER THAN PROCURE THEIR SUPPLIES DIRECT FROM THE ACTUAL MANUFACTURERS.



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We make all kinds of Chest Protectors on the premises, and are consequently in a position to meet any competition.

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Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with.
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Cervical Jacket,

1. Cervical Jacket, No. 3.

JACKET

(in cases of slight deformity)

INSTRUCTIONS

FOR MEASUREMENT.

Circumference at axilla.

" " waist.

" " hips.

Length from axilla to great trochanter.

In severe angular cases circumference over apex of curve, position of ditto, and contour should be given; in lateral cases a description of the case.

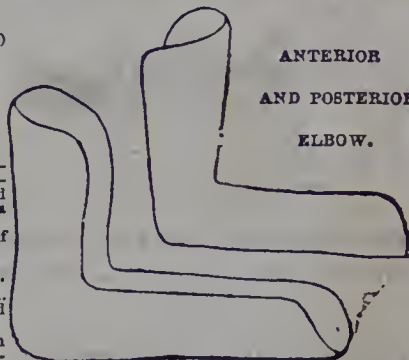
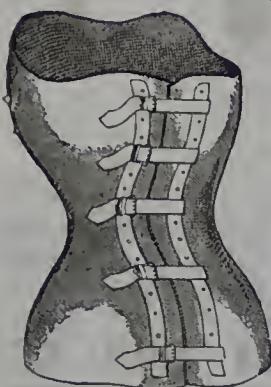
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Same measurements required, and circumference at neck, and length from neck to axilla.

Any part of the Jacket can in the process of manufacture be left soft.

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EXTRACTUM SENNÆ LEGUMINUM LIQUIDUM;

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A pleasant, mild, and efficacious Aperient, superior in many respects to Cascara Sagrada. Dose—From $\frac{1}{2}$ to 1 Fluid Drachm.
See Paper by Dr. MACFARLANE in The Lancet of Saturday, July 27th, 1889, p. 164.

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TOOTHACHE ESSENCE
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A Glass Tube fitted with
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A composition of two
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Heliotrope, Musk, Vio-
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**2 dozen in box, 2/3 doz.
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Very attractively got up, in
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1 1/2 " 3/6 " 3/3 " 3/
3 " 5/ " 4/9 " 4/6
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4/ doz., 3 doz., 3/8.
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A New Article, in which Menthol is applied in a similar way to Mustard Leaves. They will be found most useful in cases of Sciatica and Nervous Headache, also to those suffering from Sleeplessness. **3/6 doz. Packets.** Three Leaves in a Packet. Will stand any climate.

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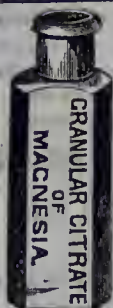
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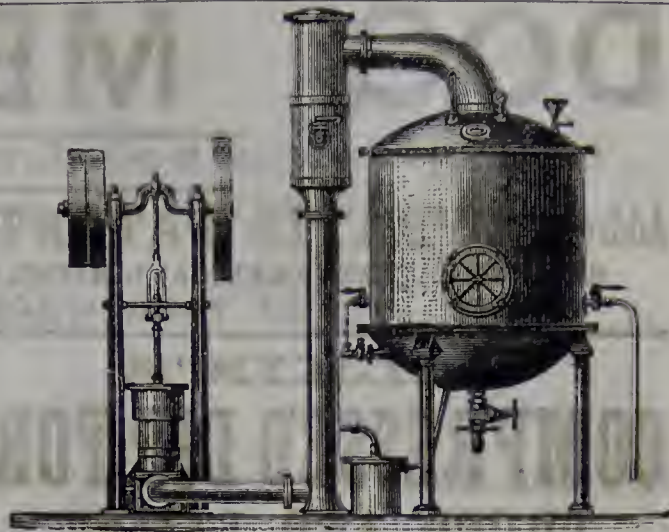
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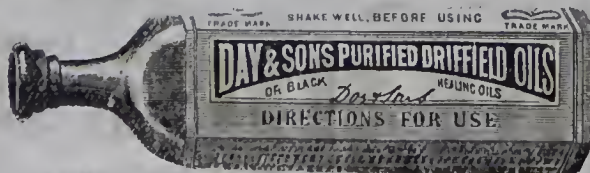
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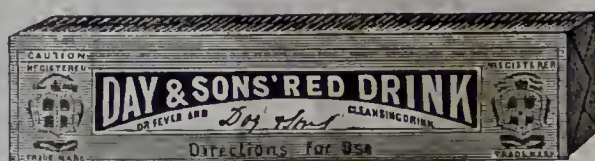
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For assuaging pain and inflammation in all wounds, saddle galls, strains, bruises, swellings, and relaxed tendons in Horses. For pain after calving and lambing, and for swollen udders and sore feet.

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Celebrated for inflammatory disorders, such as fevers, pleurisy, foot-and-mouth complaints, yellows, surfeit, and red-water. Also for difficult calving and lambing. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a bad time of parturition.

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Unmatched for colic or gripes and debility in Horses, for colds, chills, calving fits, flux and diarrhoea in Cattle, Calves, and Sheep. For Ewes weakly after lambing and blown Cattle and Sheep, its effects are marvellous.

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Used as laudanum in uncontrollable spasmodic pains and violent bowel complaints. Invaluable for parturition in Mares, Cows, and Ewes.

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Jars, 2-gallon, 2/6; 3-gallon, 3/; 4-gallon, 4/.
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SPECIALITY.—Our Refined Liquid Carb. Acid is a bright pale colour, guaranteed 97 per cent. to 99 per cent., and free from all impurities, such as Sulphuretted Hydrogen, &c.

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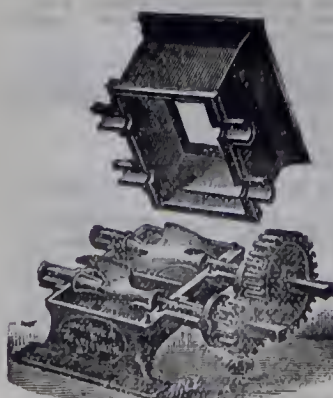
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s.	d.	s.	d.
0	6	4	0
1	0	7	0
3	6	2	6
6	0	4	6
11	6	8	6
23	6	20	0
55	0	38	6
Per gall.			
5	0	3	6
1	1	8	6

1	0	each Canisters, in boxes of 1, 2, or 3 doz.	8	6	per doz.
0	6	" " (Also in "Casks and Bags.")	4	0	"

No. 1 QUALITY.—(In 1-lb. Bars, papered.)

31 6 .. In 1-cwt. Boxes 28 0 per cwt.
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25 6 ..	In 1-cwt. Boxes	22 0 per cwt.
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Elegant Tablets for the Toilet, of finest quality, containing the
Antiseptic Properties of the Fluid.

Antiseptic Properties of the Fluid.				
Per box.				
1 6 ..	Perfect Purifier, in Boxes of 6 Tablets..	..	1 0	per box
1 6 ..	Coal Tar, per Box of 6 Tablets ..	..	1 0	"
2 0 ..	Old Brown Windsor, in Boxes of 12 Tablets ..	..	1 6	"
2 6 ..	Toilet (Scented), in Boxes containing 6 Tablets	..	1 9	"
2 6 ..	Sublime Toilet (Unscented), in Boxes of 6 Tablets ..	..	1 9	"
3 0 ..	Sublime Toilet (Scented) ..	..	2 0	"
2 0 ..	Boudoir Tablets (Perfumed), in Boxes of 3 Tablets ..	..	1 4	"
5 0 ..	Transparent, Complexion, in Boxes of 12 Tablets	..	3 0	"

1	0	each	..	Tooth Powder, in Metal Boxes	7	0	per doz.
1	0	"	..	" Paste, " "	8	0	"
1	0	"	..	" Soap, " "	7	0	"
2	0	"	..	Dentifrice Water, in Bottles, with					
				Sprinkler	15	0	"
3	6	"	..	Spray Diffuser, in Box complete..	30	0	"

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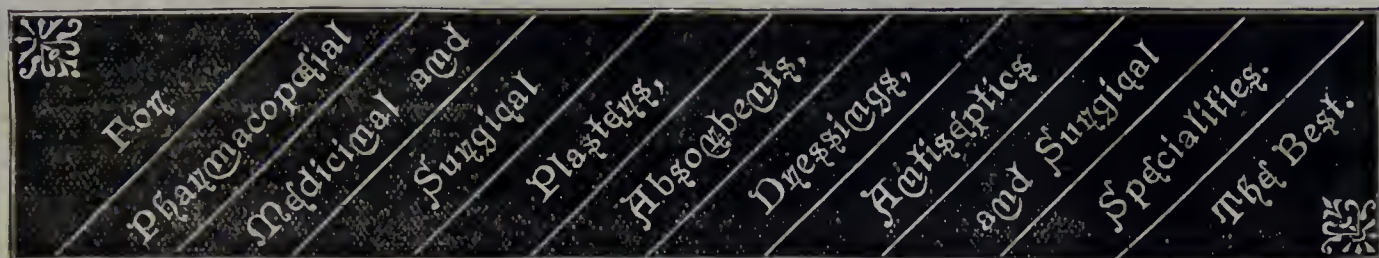
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